It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/E MI 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.

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

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 cover 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 tampering 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, 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 trims.

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, EXPRESS 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/queries 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.

OMEGA’s policy is to make running changes, not model changes, wherever an improvement is possible. This affords our customers the latest in technology and engineering.

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M0026/0511
OS499L-30 (with white LED Flashlight) Thermometer Operating Instructions

For Model with thermocouple socket

The thermometer is a non-contact infrared thermometer. There are many mathematical modes for the Infrared function. Please remember to keep away from children and don’t use it for safety related applications.

**Default Screen**

Simply aim the thermometer at the target with Lens (2) and press Meas. key (6) to display the surface temperature. The Distance:Spot is 30:1. Please make sure the target area is within the field of view.

FUNCTION

- **Press Mode key (2)** for scrolling more display function as follows.

- **E**
  - Press mode key (2), then press Up key (6) or Down key (3) to set the emissivity, then press mode key (2) to confirm it. The emissivity can be changed from 0.10 (10E) to 1 (100E).

- **MAX, MIN, AVE, HI, LO, LAL, HAL**
  - Press mode key (2) for the Maximum (MAX), Minimum (MIN), Different between MAX and MIN (DIF) and Average (AVG) modes. During the measurement, the special modes reading will be displayed beside the mode icon.

- **PRB**
  - Press Up key (6) or Down key (3) to change the High Alarm (HAL) or Low Alarm (LAL), then press Meas. key (6) to confirm it. When the reading is outside the High Alarm (HAL) or Low Alarm (LAL) limit. The High or Low icon will flash and you will hear a beep sound.

**ADD VALUE**

- **In E, MAX, MIN, DIF, AVG mode:**
  - Press Up key (6) for LOCK mode ON/OFF. The lock mode is particularly useful for continuous monitoring of temperatures for up to 60 minutes.
  - Press Down key (3) for °C or °F transferred.

- **In MAX, MIN mode: Hold on the Meas. key (6)**
  - The Bar display indicates the measuring temperature. The bar shows RED color when the reading is close to maximum value, and shows BLUE when close to minimum. While the temperature is between the maximum and minimum, the bar will display in YELLOW.

**CAUTION**

1. **Caution:** The measurement range is for thermometer only. User should choose proper probe types for different kinds of application. Please make sure the target to be measured will not exceed the temperature range of the probe to avoid permanent damage of the thermocouple probe.

2. **Caution:** To avoid electric shock and thermometer damage, do not measure live circuit where voltage exceeding 24V AC RMS or 60V DC with the thermocouple probe.

3. **Caution:** To avoid electric shock and thermometer damage, do not measure live circuit where voltage exceeding 24V AC RMS or 60V DC with the thermocouple probe.

4. **Caution:** The measure range is for thermometer only. User should choose proper probe types for different kinds of application. Please make sure the target to be measured will not exceed the temperature range of the probe to avoid permanent damage of the thermocouple probe.

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6. **Caution:** To avoid electric shock and thermometer damage, do not measure live circuit where voltage exceeding 24V AC RMS or 60V DC with the thermocouple probe.

**BACKLIGHT**

- **LCD Backlight:** always on.

- **Backlight (on):** and press Down key (3) for laser function ON/OFF.

**SPECIFICATION**

- **Item**
  - Thermoelectric Probe Scan function (K type; probe not included)
  - Measurement Range
    - -50 to +760°C (; -76.8 to +1400°F)
    - -64 to +1400°C (; -83.2 to +2522°F)
  - Operating Range
    - 0 to +50°C (32 to +122°F)
  - Accuracy (Tamb=+25°C)
    - ±1% of reading or ±1°C (1.8°F) whichever is greater (Test under Tamb=+25°C)
  - Accuracy (Tamb=+25°C)
    - ±1% of reading or ±1°C (1.8°F) whichever is greater (Test under Tamb=+25°C)
  - Emissivity Range
    - 0.95 default – adjustable 0.1 to 1 step .01
  - Resolution
    - 0.1°C/0.1°F at -83.2 to 999.9°C/°F, otherwise 1°C/1°F
  - Response Time (90%)
    - 1sec
  - Distance:Spot
    - 30:1 (80% energy covered)
  - Battery Life (alkaline)
    - Min. 30 hours continuous use without laser
    - Min. 7 hours continuous use with laser
  - Dimensions
    - 112.9 x 24.5 x 171.8 mm (4.4 x 1.1 x 6.7 in)
  - Weight
    - 255.7 grams (9.02 oz) including batteries (AAA 2pcs)

- **Note:** Under the electromagnetic field of 3V/m from 200 to 650 MHz, the maximum error is 1°C (18°F).

- **Caution:** The measure range is for thermometer only. User should choose proper probe types for different kinds of application. Please make sure the target to be measured will not exceed the temperature range of the probe to avoid permanent damage of the thermocouple probe.

- **Caution:** To avoid electric shock and thermometer damage, do not measure live circuit where voltage exceeding 24V AC RMS or 60V DC with the thermocouple probe.

- **EMC/RF:** Readings may be affected if the unit is operated within radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.