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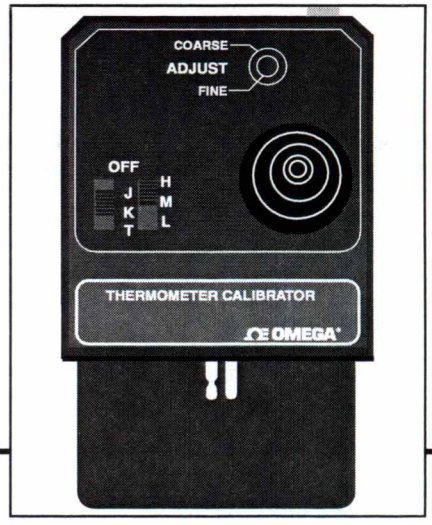
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HH20CAL

Economical Thermocouple Calibrator



INSTRUCTION SHEET

M1041/0497

UNPACKING

Remove the Packing List and verify that you have received all equipment, including the following (quantities in parentheses): calibrator (1), 9V battery (1), and Instruction Sheet (1). If you have any questions about the shipment, please call the OMEGA Customer Service Department.

When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

NOTE

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

GENERAL DESCRIPTION

The OMEGA® HH20CAL Economical Thermocouple Calibrator is used with OMEGA HH20 Series; HH25, 26; HH55; HH81, 82; HH95, 99; 450 Series, 871, 872 Handheld Thermometers. The HH20CAL is designed to plug directly onto the OMEGA Handhelds, enabling them to be used as portable calibrators for digital readouts, controllers and other instrumentation.

The calibrator will simulate J, K, or T thermocouples, as selected by the thermocouple selector switch. The simulated temperature can be adjusted anywhere between –350°F and 2500°F using the coarse and fine tune dials and the HIGH/MEDIUM/LOW range switch. The HH20CAL allows quick, easy adjustment to within 0.1", overcoming sensivitiy problems encountered with other manufacturer's models. The output is compensated to correct for ambient temperature, ensuring repeatable calibration points even in drafts and other temperature changes.

BATTERY REPLACEMENT

The HH20CAL operates on a 9 volt alkaline battery providing approximately 1000 hours of operation and easy replacement (Open case by removing the three screws on the back of the unit). The battery condition is checked when the calibrator is off. A low battery is indicated by a reference thermometer reading of less than 100°C (212°F). A new battery will display approximately 230°C.

OPERATION

1. Plug the HH20CAL onto the OMEGA Series Handheld Thermometer being used.
2. Connect the proper thermocouple wire and miniature male SMP connector to the HH20CAL.
3. Connect the other end of the thermocouple wire to the instrument to be calibrated.
4. Switch on the OMEGA Series Handheld and the HH20CAL by moving the slide switch to J, K or T.
5. Using the HIGH/MEDIUM/LOW range switch and the COARSE/FINE adjust knobs set the HH20CAL to the output required as read on the Handheld.

NOTE

In order to make the HH20CAL completely compatible with a wide range of thermometers, the male connector on the bottom of the unit is fitted with a universal mounting arrangement. The center position mates with single input thermometers while the offset position mates with dual input models. To change connector positions, disconnect the unit from any instrument and remove the back support thumbscrew. Open the case by removing the three screws on the back of the unit. After removing the case back, the connector is accessible. Simply lift the connector and its mounting pin from the stud and press the pin into the other stud. The connector is then press-fitted into place on the pin. Reassemble the case and back support.

SPECIFICATIONS

Accuracy:	±(0.3% + 1°C) + accuracy of indicating thermometer, (includes ambient temperature effect).
Range:	–350°F to 2500°F overall (–212°C to 1371°C)
Low Range:	–350 to 250°F
Medium Range:	200 to 1200°F
High Range:	1200 to 2500°F
Resolution:	Allows tuning to 0.1°C (with a 0.1°C indicating thermometer)
Operating Ambient:	32°F to 130°F less than 80% relative humidity up to 95°F
Storage Temperature:	–30°F to 140°F less than 80% R.H. up to 95°F
Connections:	Subminiature OMEGA SMP thermocouple plug and jack.
Power:	Standard 9 volt battery
Dimensions (L x W x H):	127 x 71 x 38 mm (5" x 2.8" x 1.5")
Weight:	227 g (8 oz)

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

MADE IN USA

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.

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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 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.

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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