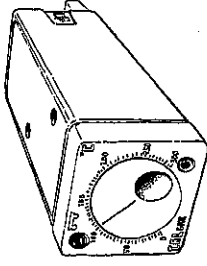
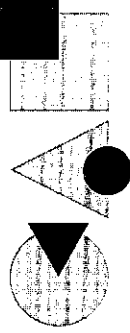


CAL 6000 TEMPERATURE CONTROLLER INSTALLATION AND OPERATING MANUAL

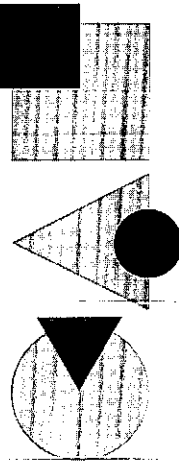


The Model 6000 is a time proportioning analogue temperature controller which will provide stable and reliable control for the majority of applications, with minimum overshoot on warm up.

WARRANTY

CAL Controls warrant this product free of defects in workmanship and materials for two (2) years from date of purchase.

1. Should the unit malfunction, return it to the factory. If defective it will be repaired or replaced at no charge.
2. There are no user-serviceable parts in this unit. This warranty is void if the unit shows evidence of being tampered with or subjected to excessive heat, moisture, corrosion or other misuse.
3. Components which wear, or damage with misuse, are excluded e.g. Relays.
4. To comply with this warranty the installation and use must be by suitably qualified personnel.
5. Neither CAL Controls Ltd or CAL Controls Inc shall be responsible for any damage or loss to other equipment howsoever caused, which may be experienced as a result of the installation or use of this product. CAL Controls liability for any breach of this agreement shall not exceed the purchase price paid.



CAL Controls Ltd

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CAL Controls Inc

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Tel: (847) 680-7080 Fax: (847) 816-6852

CAL Controls policy of continuous development may cause detail changes to the enclosed information. E & OE

Installation and Connection Diagram For:

Model 6300 Panel mounting

Model 6200 Plug-in, adjustment on top

Model 6100 Plug-in, remote adjustment

INSTALLATION - IMPORTANT SAFETY INFORMATION PLEASE REVIEW

Designed for use: Within Installation Category II environment and pollution degree 2 as defined in EN61010-1:

To avoid possible hazards, accessible conductive parts of final installation should be protectively earthed in accordance with EN61010 for Class 1 equipment.

Output wiring should be within a grounded cabinet. Sensor sheaths should be banded to ground or not be accessible. Live parts should not be accessible without use of a tool.

It is the responsibility of the installation engineer to ensure that this equipment's compliance to EN61010 is not impaired when fitted to the final installation, and to use this equipment as specified in this manual. Failure to do so may impair the protection provided.

ELECTRICAL INSTALLATION (Follow wiring diagrams and regulations).

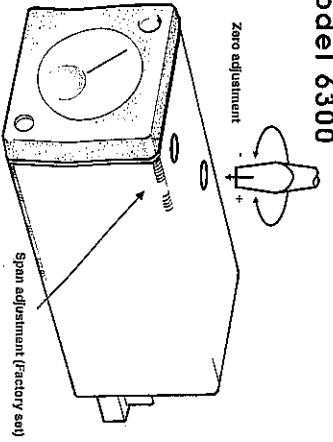
CAUTION RISK OF ELECTRICAL SHOCK.

1. Check controller label shows the correct supply voltage for the application.
2. Connections are shown on the side label.
3. For connection to 6300, type Faston receptacles are provided in accessory kit.
4. Recommended wire size for mains voltage 32/0.2.1.0mm² (18 AWG 0.04"²) rated to 6 Amps/300V at 70°C. (For 10 Amp relay use 10Amp/300V at 70°C)

Ultimate Safety Alarms. Do not use this equipment solely when personal injury or damage may be caused by equipment failure.

Cleaning - if required wipe with damp cloth (water only).

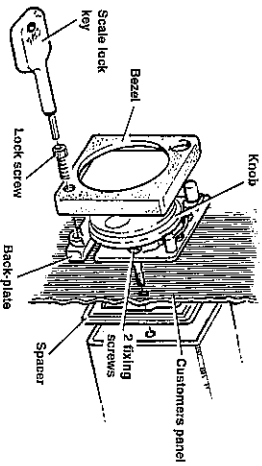
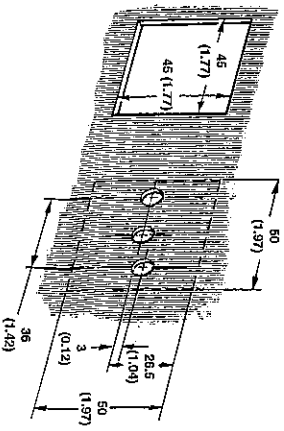
Model 6300



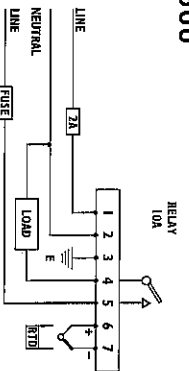
Time proportioning provides smooth control but the actual process temperature may be slightly offset from the setpoint. This error may be removed with the "zero" adjustment. Clockwise to increase and anti-clockwise to decrease the reading.

EITHER through a 49 x 49mm (1.77 x 1.77) DIN panel outlet

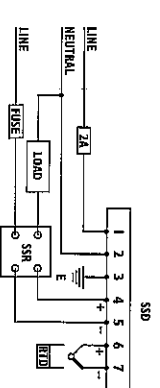
OR through 3 x 6mm (0.31) holes



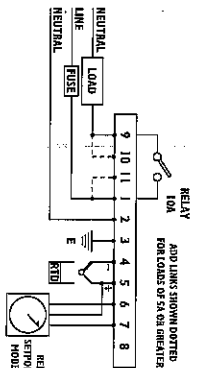
6300



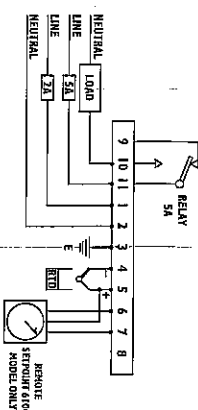
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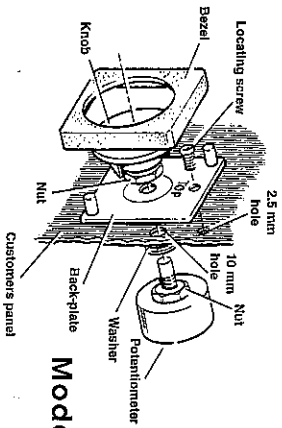
6100/6200



6100/6200

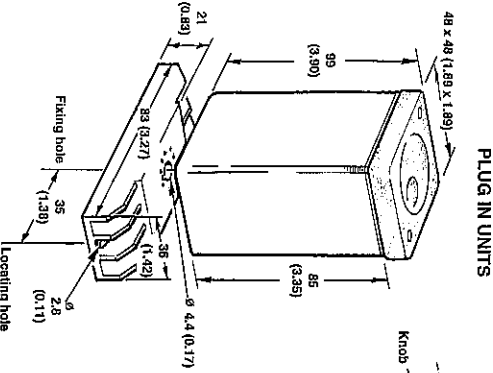


INSTALLATION 61-SA



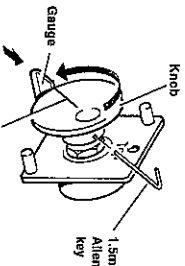
Model 6100

Model 6100



Model 6200

PLUG IN UNITS



Model 6100

SPECIFICATION

Supply Voltage: 115 or 230 ± 10% 50 TO 60 HZ
Power Consumption: 4VA maximum

Inputs:

Sensor Lead Resistance: 15 to 1 typical

CJC Rejection: Negligible up to 260Vdc

Common Mode Rejection: Negligible up to full scale mV

Series Mode Rejection: Negligible up to full scale mV

Calibration Accuracy: ±2% FS or 4°C which ever is the greater

Setting Linearity: ±1%

Setting Resolution: ±0.5% or ±1°C dependent on application

Control Accuracy: ±1% (22°C after 30 mins settling time)

Control: Proportional band fixed 10°C

Indication: ON/OFF optional, Hysteresis 4°C

Environmental: High brightness red LED

Scale: 0 to 50°C

EMC: Immunity EN60082-1

EMC: Emissions EN50081-1, FCC Rules 15, Sub Part J, Class 2

Construction: Flame retardant polycarbonate, Knob/Bezel: Flame retardant ABS - Nextel Coated

Thermocouples J,K,IR and S (to be specified when ordered), PT100/RTD 2 wire DIN 43760

100 Ohms maximum

Upscale

15 to 1 typical

Negligible up to 260Vdc

Negligible up to full scale mV

±2% FS or 4°C which ever is the greater

±1%

±0.5% or ±1°C dependent on application

22°C after 30 mins settling time

Proportional band fixed 10°C

ON/OFF optional, Hysteresis 4°C

High brightness red LED

Immunity EN60082-1

Emissions EN50081-1, FCC Rules 15, Sub Part J, Class 2

Construction: Flame retardant polycarbonate, Knob/Bezel: Flame retardant ABS - Nextel Coated