



Guth Laboratories ^{INC}

Model AS-1104-DR Guth Model 10-4D



Model 10-4D **ALCOHOL BREATH TEST SIMULATOR** Digital Readout - Microprocessor Controlled

PERFORMANCE

Accuracy of Reading: $\pm .05^{\circ}\text{C}$
Warm-up Time: <10 minutes*
Recovery Time from Test: <2 seconds
Liquid Level 500 ml
*Ambient @20°C

SPECIFICATIONS

Construction: All metal, chrome plated
Weight: 5 lbs
Readout: Bright LED digital display
Sensor: Electronic Solid State
Power Input: 120 VAC, 60 cycle
220 - 240 VAC, 50 cycle
Power Consumption: 72 watts
A Calibration Port is Provided for Insertion of a National Institute of Standards and Technology (NIST) Reference Mercury-In-Glass Thermometer

FEATURES Eight bit microprocessor control High stability internal voltage reference 12 bit digital accuracy from A/D converter Internal AC power transformer with AC connections isolated Visual indication of system operation during warm-up (dot scan) Visual indication of heater activity via dot display Visual and audible indication of system



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malfunction (Malfunction is displayed as an error number) RFI protected

SYSTEM SHUTDOWN UNDER THE FOLLOWING CONDITIONS No output from shorted or open temperature sensor No change in ambient temperature after 15 minutes Temperature of solution $<33.8^{\circ}\text{C}$ / $>34.2^{\circ}\text{C}$ RFI present No reading from internal A/D converter

ERROR STATUS CODES

Error 1 = Sensor Failure

Error 2 = RFI present

Error 3 = Temperature $>34.2^{\circ}\text{C}$

Error 4 = No temperature change

Error 5 = Temperature $<33.8^{\circ}\text{C}$

WARRANTY

One year, parts and labor.