



Guth Laboratories^{INC}

Model AS-5900-DS Guth Model 590 Portable Alcohol Simulator



Model 590

PORTABLE ALCOHOL BREATH TEST SIMULATOR

Digital Readout - Microprocessor Controlled

NHTSA Approved

US Patent # 6,526,802

PERFORMANCE

Temperature Stability: $\pm .02^{\circ}\text{C}$

Accuracy of Reading: $\pm .05^{\circ}\text{C}$

Warm-up Time: <10 minutes*

Recovery Time from Test: <4 seconds

Liquid Level 250 ml

*Ambient @20°C

SPECIFICATIONS

Construction: All metal, Powder Coated

Weight: 2 lbs

Readout: Bright LED digital display

Sensor: Electronic Solid State

Power Input: 12VDC Operation:

Cigar Lighter Plug (Included) Optional Battery Pack, Optional AC Power Pack

A Calibration Port is Provided for Insertion of a National Institute of Standards and Technology (NIST) Reference Digital Thermometer

FEATURES Eight bit microprocessor control High stability internal voltage reference 12 bit digital accuracy from A/D



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converter Visual indication of system operation during warm-up (dot scan) Visual indication of heater activity via dot display Visual and audible indication of system malfunction (Malfunction is displayed as an error number) RFI Interference Detection Magnetically Coupled Stirrer RS232 communication port

SYSTEM SHUTDOWN UNDER THE FOLLOWING CONDITIONS No output from shorted or open temperature sensor No change in ambient temperature after 5 minutes Temperature of solution $<33.8^{\circ}\text{C}$ / $>34.2^{\circ}\text{C}$ RFI present No reading from internal A/D converter No Solution in Jar - Heater Protection Low Battery

ERROR STATUS CODES

Error 1 = Sensor Failure
Error 2 = Low Battery
Error 3 = Temperature $>34.2^{\circ}\text{C}$ or RFI
Error 4 = No temperature change
Error 5 = Temperature $<33.8^{\circ}\text{C}$
Error 6 = No Solution in Jar

OPTIONS

590-AP 10 LPM Air Pump Module
590-BP Battery Pack Module
590-PS Power Supply Module

WARRANTY

One year, parts and labor.