

THE STANDARD IN  
EVIDENTIAL BREATH  
ALCOHOL TESTING

# INTOXILYZER<sup>®</sup> 5000<sub>EN</sub>

*NO UNPROVEN TECHNOLOGY HERE!*



For more than 25 years, CMI's Intoxilyzer<sup>®</sup> line of evidential infrared spectrometry breath alcohol instruments has evolved into the **STANDARD** for accuracy, reliability and courtroom evidence. They're backed by CMI's factory service and support. Intoxilyzer<sup>®</sup> 5000s are the instrument of choice in the majority of state breath alcohol programs in the U.S. and in several areas of Canada. That tradition continues with the Intoxilyzer<sup>®</sup> 5000EN, the newest in CMI's Intoxilyzer<sup>®</sup> 5000 line of products.

**EMI** INC.

# INTOXILYZER<sup>®</sup> 5000<sup>EN</sup>

## SPECIFICATIONS

### FUNCTIONAL

- Power Switch: Activates breath tester.
- Start Test Switch: Brings the unit out of standby and activates the test mode sequence.
- Software Mode Selection: Features such as data entry, printing, test mode, digits displayed, etc. can be changed by accessing the features setup menu using the keyboard.
- Digital Display: A 14-segment, 16-character, dot matrix (vacuum fluorescent) alphanumeric display which signals the operation of the unit, alerts the operator to required actions, and gives the alcohol test concentration in weight per volume.
- Audible Tones: Signal the completion of an operation, the presence of a malfunction, an incorrect operational procedure, or an unfulfilled test requirement.
- Printed Test Record: Provides a printed record of the date, model and serial number of the instrument, the test results and time of the test on a multi-copy card or single/double ply roll paper.
- Breath Sampling: Instrument automatically senses end expiratory air (alveolar) using the technique of slope detection in conjunction with a minimum volume and minimum time requirement.
- Keyboard: Keyboard is used to set time and date, set software mode switches, initiate maintenance and diagnostic routines, and input test data in the test record.
- Calibration: The instrument is factory-calibrated and does not require periodic calibration adjustments as do fuel cell-equipped instruments.
- Communications: The instrument is equipped with an RS-232 port for external computer interface.
- Recirculation: The instrument is equipped with two solenoids which recirculates simulator vapor and extends the life of the simulator solution.
- Standby Mode: Standby mode reduces dust accumulation in the instrument and increases component life by shutting down non-vital functions during inactive periods.
- Remote Turn-On: Allows the operator, via a phone modem, to change the instrument from standby mode to testing mode for remote diagnostics, control checks or record transfer.
- Breath Volume Measurement: A flow sensor allows breath volume information to be calculated and printed during each test.
- Gas Calibration Ready: The instrument is equipped to use dry gas calibration verification medium as well as wet bath simulation.
- Barometric Pressure Measurement: If dry gas is used as a calibration verification medium, a barometric sensor is included to provide automatic correction for barometric pressure.

### PERFORMANCE

- Range: 0.005 to 0.450 BrAC grams/210 liters
- Accuracy: Better than federal requirements,  $\pm 3\%$  or  $\pm 0.003$  BrAC, whichever is greater
- Precision: Standard deviation of 0.003 BrAC or better
- Test Time: Typically less than one minute (excluding data entry)

### ELECTRICAL

- Power:
  - Input Voltage: 117 volt AC  $\pm 10\%$  or 230 VAC  $\pm 10\%$
  - Input Current: 1.5 amps @117 volts AC
- Fusing and Filtering: 3 amp fuse for overload protection, passive filter to meet FCC specifications

### ENVIRONMENTAL

- Operating Temperature: 68°F to 86°F (20°C to 30°C)
- Storage Temperature: 32°F to 140°F (0°C to 60°C)
- Humidity: 10% to 90%, non-condensing

### OPTICAL

- Light Source: Tungsten filament in halogen gas enclosed by a clear quartz envelope. Life expectancy is more than 10,000 hours.
- Absorption Wavelength: Narrow passband IR filters are used to measure infrared absorption at specific wavelengths yielding reference, alcohol and interferent detection.
- Cooled Detector: Single stage, thermoelectrically-cooled lead selenide detector with an integral thermistor for temperature regulation. Life expectancy is more than seven years.
- Light Path: Path length is 11.4 inches (28.9 cm).

### MECHANICAL

- Dimensions: 18.75" wide x 17.35" deep x 5.75" high (47.6 cm wide x 44.1 cm deep x 14.6 cm high). With organizer stand: 36.35" wide x 19.25" deep x 10.5" high (92.3 cm wide x 48.9 cm deep x 26.7 cm high).
- Weight: Approximately 30 lbs. (13.6 kg)
- Sample Chamber: 11.4" (28.9 cm) with a volume of 81.4cc
- Breath Tube: Instrument is provided with external, detachable, heated breath tube.

### COMPUTER BASED

- A multiprocessor system employing a microprocessor controls the general operation of the instrument from information display to printer operation, keyboard interface, and electro-mechanical functions. A separate microcontroller is used for optical signal processing which increases the system's signal handling.
- The microprocessor includes 56K EPROM (erasable programmable read only memory), 32K of battery-backed RAM and 8K of Scratch RAM (Random Access Memory). Additionally, the microcontroller has a separate 64K EPROM available and a separate 8K scratchpad RAM. Every aspect of operation, from displaying and printing of information to the basic electrical and mechanical functions, is micro-computer controlled.

### WARRANTY

- One year, parts and labor. Two- and three-year are optional.

### OPTIONAL

- Filters: The instrument can be equipped with three or five filters (for enhanced interferent detection).
- Keyboards: The instrument can be equipped with either a standard PC type keyboard or a sealed membrane type which can be built into the front, sloped panel of the instrument.
- External Printer: A Centronics-type printer port can be installed in the instrument which allows for printing of test results to an external printer.
- Simulator Temperature Monitor: This allows the instrument, through software and hardware, to monitor the simulator solution temperature.
- Heated Simulator Hose: Temperature-regulated simulator hoses eliminate the possibility of condensation in inlet and/or return tubing.
- Communications Software: CMI's COBRA program allows test results to be uploaded to a PC for record-keeping and data management. COBRA also provides remote diagnostic and calibration verification capabilities. COBRA is a Windows<sup>®</sup> based application.
- Card Reader with External Keyboard: Allows for the use of magnetic strip encoded driver's licenses and certification cards.
- Organizer Stand: Provides a keyboard tray, simulator holder (or dry gas standard), and storage for printer cards and mouthpieces.



DOT-approved



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