For more than 25 years, CMI’s Intoxilyzer® 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® 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® 5000EN, the newest in CMI’s Intoxilyzer® 5000 line of products.
### 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 unfilled 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, ±3% or ±.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 ±10% or 230 VAC ±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® 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.