# lion alcolmeter® SD-400

*...a breath alcohol instrument for field use - anywhere!*
*...fast ...simple ...accurate!*

## Instrument Features

● **SIMPLE TO USE:** the **lion alcolmeter® SD-400** is fully automatic. This means it's very simple to use, so training requirements are minimal.

● **FAST, ACCURATE ANALYSIS:** using the Lion *fuel cell* sensor. This ensures high specificity to alcohol, and a long stable working life.

● **EASY TO READ DISPLAY:** alcohol readings are shown on a large illuminated display. Four indicator lights inform and instruct the operator.

● **LAST TEST RECALL:** the result of the last breath test can be recalled, even if the instrument has since been switched off.

● **AUTOMATIC DATA COLLECTION:** all alcohol readings are stored in memory, with date and time, and can be downloaded to a printer or PC. An optional data-logging system [eg operator ID, subject sex, test location] is also available.

● **TRUE EVIDENTIAL CAPABILITY:** the **lion alcolmeter® SD-400** may be used for fast subject screening, but is sufficiently accurate for *evidential* testing. Attach the battery-operated printer **[SD-400P]** or use a PC with **OnLine-400™** for data input, automated control and comprehensive documentation.

● **CALIBRATION SECURITY:** by means of the 'dongle' electronic key.

● **APPROVALS:** the instrument is Approved by law enforcement authorities worldwide, for both screening *and* evidential breath testing applications.

# Simple Operating Procedure!



**1**

**SWITCH ON:**
**AUTOMATIC SELF CHECK**



**2**

**ATTACH MOUTHPIECE:**
**INSTRUCT THE SUBJECT**



**3**

**THE SUBJECT BLOWS**



**4**

**NOTE ALCOHOL READING**

# Advanced Specifications and Features

- **Fuel Cell Sensor:** high specificity to alcohol, unaffected by other possible breath contaminants.
- **Warm-up Time:** the instrument is ready for use within 15 seconds of switch on, at *any* temperature.
- **Measuring Range:** normally 0.02 to 2.00mg/litre BrAC. An overrange indication is given at higher levels.
- **Analytical Response Time:** normally within 30 seconds; but within 5 seconds at zero alcohol levels.
- **Temperature Range:** from -5°C to +40°C, for optimum operation.
- **Recalibration:** every six months, using either a wet-bath simulator or **AlcoCal**® gas standard.
- **Recovery Time:** typically 10 seconds at zero alcohol; 60 seconds at 0.35mg/litre BrAC; 4 minutes at 2.00mg/litre.
- **Memory Capacity:** 500 tests as standard, expandable up to 5,000 on demand.
- **Power Supply:** 5 new AA cells give at least 3,000 breath tests. Two stage low power warning system.
- **Radio Frequency Immunity:** exceeds requirement of EN 50082-1.
- **Shock/Vibration:** impact resistant ABS: meets IEC 68-2-27 Part 2.1 Test EA and IEC 68-2-6 Part 2.1 Test FC.
- **Dimensions:** 169 x 80 x 39mm [instrument only]; 190 x 90 x 65mm [in leather pouch].
- **Weight:** approximately 525g [including batteries and leather pouch].
- **Date and Time:** each test result is stored with date and time [internal battery backed].
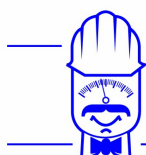
# Accessory Items

- **Disposable Mouthpieces:** low resistance to breath flow; individually and hygienically wrapped.
- **Reusable Sampling Cup:** an alternative to the mouthpiece, for rapid subject sampling and turnover, such as at a Police roadblock or factory gate.
- **Protective Pouch:** in durable grey or reflective yellow leather.
- **Rechargeable Power Unit:** with 220 volts AC/12 volts DC intelligent charger.
- **Vehicle Power Unit:** powers the **400** from a vehicle's 12 volt DC supply [via the cigarette lighter socket].
- **Data Printer:** prints stored data from memory.
- **Printer Upgrade Kit:** convert to the **SD-400P**, with automatic on-line printing for every breath test.
- **Handbooks:** covering all aspects of use of the instrument and accessories.

# Accessory PC Software

- **Data-400™ :** retrieve data from memory and store on your PC's hard disk; then export to any standard database or spreadsheet program. Operates under MS Windows.

- **DataMac-400™ :** the same application as **Data-400™**, but for use in Apple Macintosh PC systems.

- **OnLine-400™ :** use the **400** with a PC for fully evidential documentation and printout.

- **OnLineMac-400™ :** the same evidential application as **OnLine-400™**, but for use in Apple Macintosh PC's.

All **400** software is supplied with PC connector cable and full instructions.