

# lion alcolmeter<sup>®</sup> 600

*Touch-Screen*



*... a powerful new breath alcohol analysis instrument, with simple data-logging !*

The **lion alcolmeter<sup>®</sup> 600** is a powerful tool for use in road traffic law enforcement, commercial health and safety programs, and in various areas of medicine ...

- **Advanced Data Logging Function** - use the icon-driven, touch-screen display system, or the navigation pad, to enter data relating to the test, for storage and printout.
- **Multi-Sampling Modes** -
  - **Active** - using a mouthpiece, for accurate measurement of the subject's alcohol level; or using a sampling cup for a quick precursory test, just to see if alcohol is present.
  - **Passive** - hold the **600** in front of the subject's mouth and press the **Sample** button when they speak. Within seconds the display shows whether alcohol is present or not.
  - **Container Testing** - check a suspect fluid or container for the possible presence of illicitly added alcohol.
- **Fast Response and Recovery Times** - after sampling the alcohol reading is shown within seconds. Then after just a short wait the instrument is ready to test the next subject.
- **GPS Function [optional feature]** - the exact location [to within 10 meters] of every breath test is recorded in memory.



## Data Logging Function

Use the touch-screen display system to enter details relevant to each breath test into the instrument's memory. From there it can later be downloaded to a host PC, for statistical analysis in various management functions.

Some data is entered by touching the relevant icon, while others are entered using the on-screen key pad.



As an alternative to the touch-screen, the five navigation buttons can be used for data entry instead, if required.

## Integral GPS



The 600 incorporates an optional GPS system to record the exact location of each breath test - quickly, accurately and fully automatically. These GPS details are stored in memory and can then be transferred to a PC with the actual breath analysis data, where they can then be analysed using standard mapping software.

This capability enables the User Authority to build up a complete picture of the alcohol problem in their jurisdiction, together with a continuous assessment of the efficiency in its detection and control.

## Multi-Breath Sampling Modes

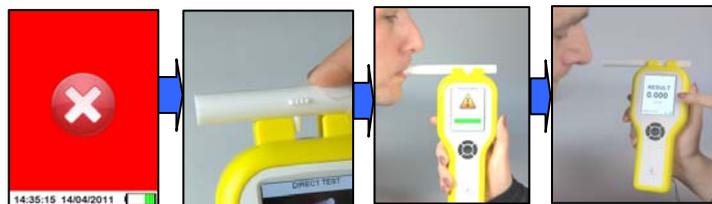
The 600 is perfect for use in Police roadblock operations, or wherever else it is required to test a large number of people for the presence or absence of alcohol - quickly and effectively.

In **Passive Mode** there is no mouthpiece. Just hold the 600 in front of the subject's mouth as they speak, then press **Sample**. The system draws in several samples of breath and determines if alcohol is present [above .05mg/L BrAC, or 0.01% BAC, **ONLY**].

Alternatively, the subject blows into the re-useable sampling cup. In either way, if no alcohol is present the 600 shows **PASS** - then quickly resets itself, all fully automatically!

In **Active Mode** the subject blows through a mouthpiece, to provide a deep lung breath specimen. This is then analysed, to give an accurate reading of the subject's alcohol level.

In **Dual Mode** the test starts off in **Passive** or **Precursory** operation; but if alcohol is found to be present the system automatically switches to **Active Mode**:



## Technical Information

- **ANALYTICAL PRINCIPLE:** fuel cell sensor, for fast accurate analysis of breath alcohol levels, with long periods between recalibration. No response to acetone and hydrocarbons, paint and glue fumes, and non-alcoholic foods and medicines.
- **ALCOHOL MEASURING RANGE:** 0.02 - 2.50mg/litre BrAC; 0.02 to 250µg/100ml; .003 - .500%BAC (g/210 litres).
- **CASE DIMENSIONS:** 195 x 80 x 42mm.
- **WEIGHT:** approximately 442g (including battery pack).
- **OPERATING TEMPERATURE RANGE:** -5 to +45°C.
- **STORAGE TEMPERATURE RANGE:** -20 to +70°C.
- **OPERATING HUMIDITY:** 10 to 95%, non-condensing.
- **OPERATING BAROMETRIC PRESSURE:** 600 to 1,300hPa.
- **CALIBRATION CHECKS:** recommended at two-monthly intervals, using a wet-bath or dry-gas alcohol vapour standard.
- **CALIBRATION ADJUSTMENT:** typically required about once a year. Easily carried out using a wet-bath or dry-gas alcohol standard [the process is protected from unauthorised access].
- **DISPLAY:** touch-screen graphics. Self-illuminated for use at night; trans-microreflective, for high visibility in sunlight.
- **AUDIBLE BEEPER:** gives auxiliary messages - such as to indicate when the person is or is not blowing correctly.
- **POWER SUPPLY:** there are two optional systems:
  - ▶ **4 x AA Cells:** give over 1,000 tests, depending on battery quality, as well as method and conditions of use.
  - ▶ **Li-Ion Rechargeable [optional feature]:** gives over 500 tests. Supplied with a mains/12 volt DC charger.
- **MEMORY:** non-volatile RAM stores over 5,000 test records, even when no power supply system is attached.
- **REAL-TIME CLOCK:** automatically records the date and time of each breath test, calibration check and calibration adjustment. Clock drift is less than 5 minutes in six months.
- **WARM-UP TIME:** the entire system is unheated, so there is no warm-up time at **any** ambient operating temperature.
- **TEST TIME:** under 1 minute per subject, depending on mode of operation, and amount of data to be entered.
- **DISPOSABLE MOUTHPIECE:** simple design. Each item is hygienically and individually wrapped.
- **MOUTHPIECE PORT:** illuminated for easy attachment at night.
- **COMMUNICATIONS:** stored data is transferred to an external PC's USB port, using **Data-600™** Windows-based software.
- **CE CERTIFICATION:** the 600 is appropriately CE marked.
- **EMC CERTIFICATION:** meets EN 60601-1-2:2007 in respect of Emissions and Immunity.
- **VIBRATION AND SHOCK:** complies with EN 60068-2 tests Fc and Ea
- **CASE CONSTRUCTION:** impact resistant PC/ABS.
- **INGRESS PROTECTION:** certified to BS EN 60529 : IP54.
- **STANDARD ACCESSORIES AND DISPOSABLES :**
  - ▶ outer skin, in high visibility yellow
  - ▶ mouthpieces
  - ▶ sampling cup
  - ▶ handbooks [**Operator** and **Supervisor**]
- **OTHER ACCESSORIES AND DISPOSABLES:**
  - ▶ protective pouch, in reflective yellow leather
  - ▶ **Data-600™** PC software, for data downloading
  - ▶ **Technical** handbook, for service engineers
  - ▶ **AlcoCal®** dry-gas alcohol standards

## Lion Laboratories Limited

TY VERLON INDUSTRIAL ESTATE, BARRY, SOUTH GLAMORGAN, **CF63 2BE, WALES, UK**  
**TELEPHONE:** [+44] [0] 1446 724500 **FAX:** [+44] [0] 1446 724501  
**WEB:** www.lionlaboratories.com **E-MAIL:** sales@lionlaboratories.com