pacific data systems

Solutions. Technology. Simple.

lion alcolmeter® 500

A breath-alcohol instrument for field use - anywhere!

...fast...simple...accurate!

—LION—

Instrument Features

Simple to use: the **lion alcolmeter® 500** 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 graphics display.

Last test recall: the result of the last breath test can be recalled at any time.

True evidential capability: the **lion alcolmeter® 500** may be used for fast subject screening. However depending on the user's criteria, it may also be suitable for evidential analysis.

Calibration: simple, software controlled procedure, by means of a hidden push-button sequence, with optional pin-code protection.

Ergonomic design: the **500** is comfortable to hold, and is genuinely pocket size.

Low power consumption: the **500** is energy efficient: just two AA cells give around 1000 breath tests.

Simple, low cost mouthpiece: so low cost per test! In fact, the **500** uses the same pressure mouthpieces as the **S-D2**: these are supplied individually and hygienically wrapped.

Simple Operating Procedure

Switch On:
Automatic Self Check

Attach mouthpiece:
Instruct the subject

The subject blows

Note alcohol reading

Advanced Specifications

Accuracy: ± .005%BAC below 0.100%BAC, ±5% of reading above 0.100%BAC

Analytical principle: Electrochemical Fuel Cell (Micro). Alcohol specific - unaffected by acetone, hydrocarbons, non-alcoholic food and drug vapours, and all other likely breath contaminants.

Measuring Range: 0.02 to 2.00mg/litre; .0.000 to 0.400%BAC [g/210 litres]. An over-range indication is given at higher levels.

Breath Sampling: the 500 automatically samples deep lung air. An optional Manual override feature may also be used, if required.

Analytical response time: normally within 30 seconds, but within 5 seconds at the 'zero' alcohol level.

Ready Time: Less than 10 seconds

Response Time: Less than 4 seconds for 0.000%BAC and less than 15 seconds on positive readings

Recovery time: approximately 100 seconds at 0.50mg/l.

Operating Temperature [Optimum]: -5 to +50°C.

Storage temperature: -20 to +65°C.

Power supply: two AA cells provide sufficient power for around 1000 breath tests. Two stage low power warning system.

Humidity: 10 to 95%, non-condensing.

Barometric pressure: 600 to 1,300hPa.

Calibration: recommended every 6 months, using a wet-bath simulator. Automatic, security-protected procedure.

Display: LCD graphics, dimensions 45mm x 21mm, 128 x 64 pixels, with backlighting.

Audible Beeper: gives auxiliary warning messages.

Microcontroller: H8/3687.

Memory: the last test is stored in memory, for later recall if required.

Warm-up time: the instrument is not heated, so there is no warm-up time - at any ambient temperature.

Disposable mouthpiece: simple disposable 'pressure' tube, the same as used with the **S-D2.**

RFI Certification: exceeds requirements of EN 50081-1 : 1992 (emission) and EN 50082-1 : 1997 (immunity)

Vibration and shock: meets IEC 68-2-27 Part 2.1 Test EA: and IEC 68-2-6 Part 2.1 Test FC.

Case construction: impact resistant ABS.

Software configuration: various software settings may be configured by Lion or the local Distributor using an external PC and Config-500, such as:

*alcohol units   *blood:breath ratio

*auto-off time   *breath discard volume

Dimensions: 125mm x 65mm x 30mm.

Weight: approximately 160g, including batteries.

Disposable and Accessory Items

Disposable mouthpieces: individually wrapped.

User handbook: covers all aspects of operation.

Service manual: for authorised personnel only.

Protective pouch: in either grey or yellow leather.

Wet-bath simulator: for calibration procedures.

Ordering Information

The **lion alcolmeter® 500** is supplied as a complete delivery unit, each unit consisting of the following items:

* instrument   * wrist-strap

* user handbook   * 4 mouthpieces

* 'Alcohol in the Human Body' book

The lion alcolmeter® 500 is certified to Australian Standard AS3547 by Benchmark Product Certification Services.

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