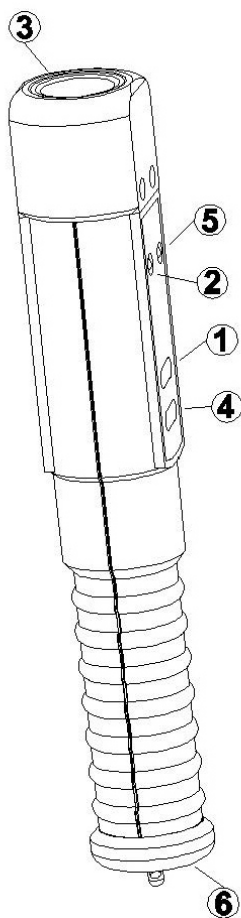




— L I O N —

AlcoBlow[®]
User Handbook

RM42053 Revision 2.3 June 2013



Unit and Controls

- ① ON/OFF Switch
- ② STATUS Light
- ③ Sample Cone
- ④ PASSIVE Switch
- ⑤ DISPLAY Light
- ⑥ Battery Cap



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IMPORTANT INFORMATION! RETAIN FOR FUTURE USE!

Read the instruction manual carefully before using this device, especially the safety instructions, and keep the instruction manual for future use.

Should you give this device to another person, it is vital that you also pass on these instructions for use

Explanation of symbols



This instruction manual belongs to this device. It contains important information about starting up and operation. Read the instruction manual thoroughly. Non-observance of these instructions can result in serious injury or damage to the device.



WARNING

These warning notes must be observed to prevent any injury to the user.



CAUTION

These notes must be observed to prevent any damage to the device.



NOTE

These notes give you useful additional information on the installation or operation.



Manufacturer



Date of manufacture



Symbol indicating separate collection of EEE.



1 SAFETY INFORMATION

- Only use the device for the specific purpose described in the user manual. Any misuse will void the warranty.
- The device is not designed to be used by persons (including children) with limited physical, sensory or mental abilities, or by persons with insufficient experience and/or knowledge, unless under observation by a person responsible for their safety, or unless they have been instructed in the use of the device.
- If a fault occurs or the device is damaged, do not attempt to repair the device yourself, as this will void the warranty. Contact your dealer and only have repairs carried out by authorised service partners.
- Do not move the device away from in front of the subject until the sample is taken or else fresh air may be mixed with the sample taken and reduce the reading.
- Do not let the subject blow smoke into the device.
- Do not hold the device at an angle to the subject, **hold it straight on.**
- Do not let the subject blow very hard into the device; this could damage the flow sensor.
- Do not use the device if it is damaged.
- Do not open up the device, it contains parts which might be harmful if handled incorrectly.
- Do not use the device in damp environments.
- Do not immerse the device in water or other liquids. **It is not watertight.**
- For cleaning, follow the instructions in **4.1 Cleaning and maintenance.**
- Do not shake or tap the device. Do not drop it.

- Protect the device from direct sunlight, extremely high or low temperatures, dirt and dust.
- If the device is not going to be used for a long period, remove the batteries.

2 USEFUL INFORMATION

Thank you very much

Thank you for your confidence in us and congratulations!

By purchasing the **AlcoBlow[®]**, you have acquired a high quality product by **Lion Laboratories Ltd.**

To ensure the best results and long term satisfaction with your **Lion AlcoBlow[®]** we recommend that you read the following operating and maintenance instructions carefully.

2.1 Items supplied and packaging

Please check first of all that the device is complete and is not damaged in any way. If in doubt, do not use it. Send it to a service point.

The following parts are included:

- 1 **Lion AlcoBlow[®]**
- 4 Batteries (AA type, LR06) 1.5V
- 1 Packing box
- 1 User manual

The packaging can be reused or recycled. Please dispose properly of any packaging material no longer required.

If you notice any transport damage during unpacking, please contact your dealer without delay.



WARNING

**Please ensure that polythene packing is kept away from the reach of children!
Risk of suffocation!**



2.2 Useful information on taking a breath sample with the AlcoBlow[®]

When the subject blows into the sample cone, the flow rate is monitored against time. Once the minimum conditions of flow and time are satisfied a small sample of breath is taken from the sample cone and passed to the sensor.

2.3 Taking a breath sample reading - quickly and accurately

The **Lion AlcoBlow[®]** allows contact-free indication of alcohol in a breath sample. The sample is taken from a distance of 2.5cm, the person blowing straight into the sample cone hard enough to trigger the audible flow alarm and long enough for the Status indicator to go RED. The alcohol in the sample is analysed and the presence of alcohol indicated on the display LED within 5 seconds. This allows for its use where many people have to be tested quickly for the presence of alcohol.

Additional function

Apart from indicating whether alcohol is present in a person's breath the **AlcoBlow[®]** can also be used to check containers, such as bottles, cans or glasses for the presence of alcohol.

3 OPERATION

3.1 Getting started

Removing / Inserting batteries

The **AlcoBlow[®]** requires the batteries provided to be fitted prior to first use. After a period of use, if the Battery Low Indication appears, (flashing Status and Display Lights) you must replace them with four new 1.5V batteries (LR06, AA).

Removal

Turn the battery cap Ⓞ 90° anticlockwise and take the cap off. Take out the batteries.

Insertion

Put in four new 1.5V batteries (LR06, AA). Make sure the batteries are the right way around (see the diagram on the rear label). Put the battery cap Ⓢ back on lining the lugs on the case up with the gaps in the cap and turning the cap 90° clockwise.



WARNING BATTERY SAFETY INFORMATION

- **Do not disassemble batteries!**
- **Clean the battery and device contacts if necessary before putting in the batteries!**
- **Remove discharged batteries from the device immediately!**
- **Increased risk of leakage, avoid contact with skin, eyes and mucous membranes! If battery acid comes in contact with any of these parts, rinse the affected area with copious amounts of fresh water and seek medical attention immediately!**
- **If a battery has been swallowed seek medical attention immediately!**
- **Replace all of the batteries simultaneously!**
- **Only replace with batteries of the same type, never use different types of batteries together or used batteries with new ones!**
- **Insert the batteries correctly, observing the polarity!**
- **Keep the battery compartment well sealed!**
- **Remove the batteries from the device if it is not going to be used for an extended period!**
- **Keep batteries out of children's reach!**
- **Do not attempt to recharge these batteries!
There is a danger of explosion!**



WARNING
BATTERY SAFETY INFORMATION
(Continued)

- Keep unused batteries in their packaging away from metal objects in order to prevent short circuiting!
- Do not throw used batteries into the household refuse; put them in a hazardous waste container or take them to a battery collection point, at the shop where they were purchased!

3.2 Switching On and Off

Switch On

Press the ON / OFF button ① down for 1 second.



NOTE
During Switch On the device will run diagnostic checks assuring functions operate correctly.

Switch Off

Press the ON / OFF button ① down for 1 second at any point during the operation of the device.

Automatic Switch Off

The device switches off automatically 2 minutes after the last operation. Both indicator lights flash and the alarm sounds to indicate the shutdown process is taking place.

3.3 Mode of Operation

Active Mode

The subject blows into the sample cone ③ and a sample is taken automatically for analysis.

Passive Mode

For use when the subject is unable to provide a sufficient sample for automatic sampling, e.g. an unconscious patient, or for testing the contents of a container.



NOTE

During the sample process do not move the device away from the subject until the sample has been taken. This avoids allowing fresh air diluting the sample.

3.4 Active Mode Testing

This mode requires the subject to blow **Actively** into the device. It is the most accurate method of operation.

- Switch on the device using the **ON/OFF** button ①. Once diagnostics are complete the **STATUS** light ② will turn **GREEN**.
- Hold the device with the sample cone ③ 2.5cm (1in) directly in front of the subject's mouth.
- Tell the subject to blow directly into the sample cone ③ moderately hard and continuously. The **STATUS** light ② will turn **AMBER** if the subject is blowing hard enough.
- Once a correct sample is taken the **STATUS** light ② will turn **RED** and an audible alarm (double beep) will indicate the subject can stop blowing.
- Within 5 seconds the result will be displayed on the **DISPLAY** light ⑤, the colour of the light indicating the level of alcohol in the breath sample. The displayed result is accompanied by an audible alarm giving an audible indication of the result. (See 3.7)

- The device will reset the **DISPLAY** light ⑤ after 2 seconds.
- A further test can be performed once the **STATUS** light ② turns GREEN.

**NOTE**

When the device is in regular use, particularly at low ambient temperatures, it is advisable to use a paper tissue to clean any breath condensates from the sample cone.

3.5 Passive Mode Testing

This mode of operation is used where the subject is unable or unwilling to blow into the device. This method of sampling will not always produce as reliable a reading as that given by Active testing.

- Switch on the device using the **ON/OFF** button ①. Once diagnostics are complete the **STATUS** light ② will turn **GREEN**.
- Hold the device with the sample cone ③ 2.5cm (1in) directly in front of the subject's mouth or nose.
- While the subject is breathing out, or perhaps talking, press the **PASSIVE** button ④, wait for the device to take a sample before removing the device from in front of the subject.
- Read the result from the **DISPLAY** light ⑤. If the light was **GREEN**, you may wish to repeat the procedure in case a useful sample was not taken.
- A further test can be performed once the **STATUS** light ② turns **GREEN**.

3.6 Checking a Container

The device can be used as an 'electronic nose' to check a container to see if it contains alcohol.



CAUTION

It is very important that the device only samples the vapours from the test liquid inside the container. The device must not contact any fluids directly, this could damage the device.

- Hold the device with the sample cone ③ fairly close to the liquid to be tested, and preferably in a relatively sealed environment.
- Press the **PASSIVE** button ④, wait for the device to take a sample before removing the device from the container.
- Note the indicated alcohol reading on the **DISPLAY** light ⑤.
- A further test can be performed once the **STATUS** light ② turns GREEN.

NOTES



If the DISPLAY light ⑤ shows AMBER or RED then the liquid contains alcohol to some degree. If the reading is GREEN then repeat the test at least twice to be sure the sample was correctly taken from the liquid vapours.

If the alcohol level in the sample was very high then it may take a minute or even longer for the sensor to clear and the STATUS light ② turns GREEN.



3.7 Display Light Indications

Status light

- **GREEN** - the device is ready to take a sample
- **AMBER** - the subject is blowing at a satisfactory flow rate
- **RED** - the instrument has taken a sample, further samples are inhibited.
- **Flashing RED/AMBER** - the breath sample is insufficient wait for a **GREEN** light before asking the subject to blow again
- **Flashing RED** - low battery

Display light

	ALCOHOL DISPLAY LIGHT COLOUR		
Indication	GREEN	AMBER	RED
Alcohol Level	ZERO - LOW	MEDIUM	HIGH
Approx. BrAC (mg/l)	0.00 – 0.04	0.05 – 0.09	0.10+
%BAC	0.000 – 0.010	0.011 – 0.020	0.021+

Both lights together

- **RED/AMBER/GREEN Sequence** - functional test at switch on
- **Ten Red Flashes** - automatic switch off warning

4 MISCELLANEOUS

4.1 Cleaning and Maintenance

- Do not immerse the device in water or other liquids. **It is not watertight.**
- To clean the device use a soft cloth slightly dampened with water.
- Never use aggressive cleaning agents, thinners, benzene, isopropyl alcohol or tough brushes.
- Do not use or store the device in an environment where the ambient temperature or humidity is too high or too low (see operating conditions in the 'Technical Specification' section) in direct sunshine, in the vicinity of static electricity or in a dusty environment.
- Remove the batteries if you do not wish to use the device for an extended period of time. Otherwise there is the danger that the batteries may leak.
- If the device is used as described in these instructions, an annual service is recommended, to ensure accuracy is maintained.

4.2 Disposal



Do not throw away or dispose of in a landfill site. Return to the local dealer or manufacturer.

Please remove the batteries before disposing of the device. Dispose of old batteries at a battery collection station, a recycling site, or in a shop. Consult your municipal authority or your dealer for information about disposal.

4.3 Technical Specification

Name and model:	Lion AlcoBlow®
Software:	SW42010
Display system:	2 Tri-colour LEDs
Power supply:	4 batteries 1.5 V (type LR06, AA)
Measuring range:	Low - 0.00 to 0.04 mg/l BrAC 0.000 to 0.010 %BAC Medium - 0.05 to 0.09 mg/l BrAC 0.011 to 0.020 %BAC High - 0.10+ mg/l BrAC 0.021+ %BAC
Response time:	approx. 5 seconds at 0.00 mg/l BrAC
Display hold time:	2 seconds
Audible alarm:	Advises of change in display status
Automatic switch off:	2 minutes after the last operation
Operating temperature range:	-5°C to +40°C
Storage temperature range:	-15°C to +55°C
Dimensions:	approx. 265 x 48 x 48 mm.
Weight:	approx. 300 g including batteries



The CE mark of this device refers to the EC directive 93/42/EEC MDD.

This device is designed for domestic use, law enforcement, industrial/safety applications and medical applications. For **commercial** use, a metrological inspection and service must be carried out once a year. This calibration will be charged for and carried out by your local dealer or the manufacturer.



Electromagnetic Compatibility

The device complies with EN 60601-1-2 standard for electromagnetic compatibility. Inquire at Lion Laboratories Ltd for details.

In accordance with our policy of continual product development, we reserve the right to make technical changes without notice.

5 WARRANTY

Please contact your dealer in case of a claim under the warranty. If you have to return the device, please enclose a copy of your invoice and state what the defect is.



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