

ACE II Basic

Operating manual

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Thank you for purchasing our breathalyzer ACE II Basic. It measures the alcohol concentration in human breath using an electrochemical sensor and calculates the blood alcohol level from that. It must only be used on basis of the instructions mentioned in this manual.

In case of any questions you may contact the distributor (ACE) by email to info@ace-instruments.net, www.ace-instruments.net

Short description

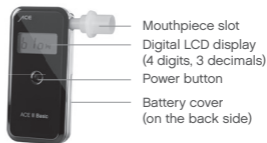
The ACE II Basic is a digital electrochemical alcohol testing device, which can be operated by only one button and shows reliable test results in % BAC. Please regularly send the device for a calibration service to Alcoholot New York, For: ACE Instruments Services (see address details on the back of this manual). For each breath test a new mouthpiece is needed.

Scope of delivery

- Digital electrochemical breathalyzer
- ACE II Basic (4 digits, 3 decimals)
- Hard case
- 5 mouthpieces (Figurative image of mouthpiece on the pictures in this manual)
- 2 pieces AAA batteries (1.5V, LR03, Alkaline)
- Pouch
- Handstrap
- Operating manual



Label of individual components



This way you receive a result as accurately as possible

- a) Wait at least 15 minutes after your last sip of alcohol. Do not eat, drink or smoke during that time.
- b) Do not open the casing.
- c) Do not keep the ACE II Basic in cold, hot, moist or badly ventilated places.
- d) Keep the ACE II Basic out of the reach of children.

- e) Conduct three inlet tests after long storage before conducting the actual alcohol test.
- f) Do not let the ACE II Basic fall.
- g) Change batteries after battery alarm. Diminished battery capacity leads to incorrect test results.
- h) Do not conduct tests in loud (sound waves disrupt the sensor), draughty or badly ventilated places.
- i) After a test result of 0.100% BAC or higher the sensor needs a resting time. In this case wait at least three minutes before the next test.
- j) Do not conduct tests in very cold, very hot or unventilated, smoky ambience.
- k) Store the ACE II Basic in a way to avoid penetration by dust or liquids.

Notes to the battery law (BattG)

The device for which this operating manual is contains two AAA Alkaline batteries (1.5V, LR03) in delivery condition. Those batteries are not made for recharging.

Trying to recharge can cause damage to property or persons. Also the use of rechargeable batteries is not possible with this device, because it can cause damage to the device.

When the batteries are depleted, they must not be thrown in the household waste.

For battery exchange only pull off the battery compartment cover and change the depleted batteries for new ones. Mind the polarity: The negatives

poles of the batteries are in contact with the springs in the battery trough. Slide the battery compartment cover over the casing until it snaps in.

All batteries and rechargeable batteries will be recycled. This way, precious resources like iron, zinc and nickel are gathered. Battery recycling is the easiest lesson in environmental.

The garbage bin means: Batteries and rechargeable batteries must not be thrown into the household waste. The signs below the garbage bins stand for:



- Hg:** Battery contains mercury
- Cd:** Battery contains cadmium
- Pb:** Battery contains lead

Calibration

To maintain the accuracy of the ACE II Basic a calibration of the integrated sensor is recommended after 1 year at the latest. The calibration is not mandatory, but the accuracy of ACE II Basic will decrease steadily without it. For a calibration send the device to Alcohoot New York, For: ACE Instruments Services (see address details on the back).

We recommend sending it as a parcel, so that in cases of loss an inquiry or proof of delivery is possible.

Due to changes in the product, the procedures stated can change. This can take place without prior notice or adaptation of the operating manual and is no cause for complaint, return or price reduction. The user is responsible to recognise deviations between the operating manual and the actual handling of the ACE II Basic and he has to react accordingly.

Preparation for the test

1. Install 2 pieces of AAA Alkaline batteries (1.5V, LR03) in the battery compartment. Remove the battery compartment cover at the back of the device carefully and insert the 2 pieces of AAA batteries. Mind the battery polarity in the process (+/-).
2. For the active mode operation put a mouthpiece on the mouthpiece connection, which is on the side of the device. Make sure it is attached properly. Use a different mouthpiece for each test person. Avoid blowing cigarette smoke into the tester!

ACE RECOMMENDS

- ALWAYS USE A NEW MOUTHPIECE FOR EACH PERSON AND EACH TEST. ACE ASSUMES NO LIABILITY FOR ANY VARIATIONS IN TESTING ACCURACY OR ANY RESULTING DAMAGES THEREOF ARISING WHEN SEVERAL PEOPLE USE THE SAME MOUTHPIECE FOR MULTIPLE TESTS.
- DO NOT USE THE ENCLOSED MOUTHPIECE FROM THE ACE SERIES, AS DURING EACH TEST RESIDUE OF HUMAN SECRETION, INCLUDING BUT NOT LIMITED TO SALIVA, BLOOD, SWEAT, WILL REMAIN IN THE MOUTHPIECE. ALWAYS USE SAFETY GLOVES WHEN REMOVING A USED MOUTHPIECE.

Conducting the measurement

1. Press the power button to turn on the device`.
2. The device warms up until you can see the "blow" sign.
- 3.a) Active mode: Put a new mouthpiece on the mouthpiece connection and then blow through the mouthpiece into the unit for 4 seconds until the sounds (a "tictac" tone) concludes.
- 3.b) Passive mode: For this mode you don`t need a mouthpiece. As soon as you can see "Blow" on the display press the power button and simultaneously breath out into the direction of the mouthpiece connection for about 4 seconds.
4. The test result is displayed for 15 seconds. If you want to test again, press the power button after the back light has turned off.
5. The device automatically turns off after about 4 minutes without using it.

* If you press the power button constantly for 2 seconds, you shortly can see the total test counts already done with this device.

IMPORTANT: AFTER CONSUMING FOOD, DRINKING ALCOHOL OR SMOKING CIGARETTES, WAIT AT LEAST TWENTY (20) MINUTES BEFORE CONDUCTING ANY TESTS WITH THE ACE II BASIC BREATHALYZER. ANY TEST CONDUCTED PRIOR TO THE EXPIRATION OF THE RECOMMENDED WAITING PERIOD WILL RESULT IN INACCURATE RESULTS.

If the test result is below 0.007% BAC (= 0.07‰ or 0.035 mg/l) then the device shows 0.000% BAC (= 0.00‰ or 0.00 mg/l) on the display. This happens because at a low range of alcohol concentration, there is a possibility to measure other material in your mouth.

Only the usage of original ACE mouthpieces

- guarantees the accuracy of the test results
- guarantees 100% safety of hygiene
- guarantees full warranty of this device

ACE WARNS: EVEN IF YOU GET A RESULT WITH THE MEANING “SAFE RANGE”, YOU SHOULD NEVER DRIVE AFTER HAVING CONSUMED ALCOHOL OR ENGAGE ANY OTHER ACTIVITIES THAT MIGHT ENDANGER YOUR HEALTH AND SAFETY OR THE HEALTH AND SAFETY OF OTHERS.

Warning notices

FLO	The breath sample was not strong enough for a measurement. After warming automatically, please blow strong and steady during sampling.
BAT	The battery power is low. Please replace the 2 batteries inside the device with 2 new ones (type AAA, 1.5V, LR03, Alkaline batteries). Do not use rechargeable batteries!

Technical data

Statement of the BAC	0.000–0.400% BAC OR 0.000–4.000‰ (per mill) OR 0.000–2.000 mg/l (the default setting of your device is BAC)
Accuracy	1. +/- 0.005% BAC (Blood Alcohol Concentration) with reference to 0.05% BAC 2. +/- 0.050‰ (per mill) with reference to 0.5‰ 3. +/- 0.025 mg/l with reference to 0.25 mg/l
Warm-up time	max. 30 seconds
Sensor	Fuel cell sensor
Response time	Within 10 seconds
Energy supply	2 pieces AAA Alkaline batteries (1.5V, LR03)
Dimensions of the device	50 x 106 x 20 mm
Weight	100 g (including batteries)
Ambient conditions	Operation: 0–40 °C Storage: 0–50 °C
Calibration	Every 6–12 months

WARRANTY AND LIABILITY

Warranty

ACE warrants the ACE II Basic against material and processing errors, in all versions and designations for a period of two (2) years, as well as a warranty of one (1) year for the integrated sensors in the ACE II Basic. This warranty includes the electronics as well as the casing or the sensor without sampling components. Components that are inevitably destroyed upon effectiveness (such as fuses) are not part of this warranty. The warranty is valid from the date of delivery or from the date of first activation (always the shorter period), if this is not stated otherwise in the accompanying literature of the product by ACE.

Misuse

OTHER APPLICATIONS OF, OR MODIFICATIONS TO, THE ACE II BASIC CONSTITUTE A MISUSE AND ENTAIL A RISK OF PERSONAL INJURY AND/OR DAMAGE TO THE DEVICE. ACE SHALL ASSUME NO LIABILITY FOR INJURY/ DAMAGE CAUSED BY MISUSE OF THE DEVICE. THE DEVICE IS NOT INTENDED FOR COMMERCIAL USE.

ACE SHALL NOT BE HELD LIABLE FOR ANY DAMAGES THAT OCCUR AS A RESULT OF ANY UNAUTHORIZED MODIFICATIONS, REENGINEERINGS OR AMENDMENTS MADE TO THE ACE II BASIC OR ITS IMPROPER USE.

LIMITATION OF WARRANTY AND LIABILITY

1. Product description

ACE REJECTS ANY FURTHER EXPRESSLY STATED OR IMPLIED WARRANTY, INCLUDING THE MARKETABILITY AND SUITABILITY FOR A DETERMINED PURPOSE. THIS WARRANTY ESPECIALLY EXCLUDES CALIBRATION. AFTER CHANGING THE SENSOR, CALIBRATION IS ABSOLUTELY NECESSARY.

WHEN AN EXCHANGE OF THE SENSOR OR A CALIBRATION IS NECESSARY FOR A PRODUCT, THE USER MAY RECEIVE AN ESTIMATE OF COSTS. SHOULD THE USER REFUSE THE ESTIMATE, ACE WILL SEND THE PRODUCT BACK UNREPAIRED / UN-CALIBRATED AND THE PRODUCT WILL BE LABELLED ACCORDINGLY.

SHOULD THE PRODUCT NOT FULFIL THE WARRANTY, THE CLAIM OF THE BUYER AND THE OBLIGATIONS OF ACE ARE LIMITED EXCLUSIVELY AND AT THE DISCRETION OF ACE TO AN EXCHANGE OR REPAIR OF THE AFFECTED GOODS OR TO A REIMBURSEMENT OF THE PURCHASING PRICE FOR THE FAULTY GOODS.

2. Application restriction

ACE IS ON NO ACCOUNT LIABLE FOR ADDITIONAL DAMAGES, INCIDENTAL DAMAGES SUCH AS, AMONG OTHERS BUT NOT LIMITED TO, LOST PROFIT AND DOWNTIME THAT RESULT FROM SELLING, PRODUCING OR USING PRODUCTS, WHICH ARE PART OF THIS APPLICATION RESTRICTION. THIS IS INDEPENDENT OF ANY CLAIMS, SUCH AS FROM CONTRACTS, NEGLIGENCE OR OTHER CULPABLE ACTIONS.

THE PRODUCT, WHICH IS ACCOMPANIED BY THIS WARRANTY AND LIABILITY DECLARATION, NO MATTER IN WHICH VERSION OR DESIGNATION, CAN ESPECIALLY NOT BE USED LEGALLY BINDING TO DETERMINE CAPABILITY TO OPERATE VEHICLES OR TO EXECUTE ACTION THAT COULD LEAD TO DAMAGE TO ONESELF OR OTHERS UNDER THE INFLUENCE OF ALCOHOL.

The thorough check for damage of all products upon receipt, a calibration suitable for the given use by the buyer and the proper use, maintenance and service according to the instructions of the accompanying product literature by ACE are mandatory prerequisites for this warranty. Maintenance and service work by non-qualified persons, as well as using non-approved consumables or spare parts are a misuse, and all warranty right shall cease immediately. As for all technically challenging products, it is a fundamental prerequisite and mandatory for the warranty by ACE that all users of this product are familiar with the properties and restrictions of the product as stated in the respective literature.

DISCLAIMER

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED. AS PERMITTED BY APPLICABLE LAW, ACE SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST

HIDDEN OR LATENT DEFECTS. IF ACE CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES BE LIMITED IN DURATION TO THE DURATION OF THE EXPRESS WARRANTY AND TO THE REPAIR OR REPLACEMENT SERVICE AS STATED ABOVE. EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, ACE IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES UNDER ANY LEGAL THEORY.

Some countries, states and provinces do not allow the exclusion or limitation of incidental or consequential damages or allow limitations on how long an implied warranty or condition may last, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by country, state or province. This Limited Warranty is governed by and construed under the laws of the country in which the product purchase took place.

3. Advice restriction

The buyer confirms that he has checked the intended use and suitability of purchased goods for any purpose in sole responsibility. Between the two parties it is expressly agreed upon that all technical or other advice by ACE regarding use of the goods or services is free of charge and was made with to the exclusive risk of the buyer. Therefore no obligation or liability can arise to ACE from any recommendation or their result.



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