

# BACtrack<sup>®</sup>



## USER MANUAL

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This device is intended to measure alcohol in human breath. Measurements obtained by this device are used in the diagnosis of alcohol intoxication.

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## **INTRODUCTION**

The BACtrack® is a professional alcohol screening device, used for the detection of alcohol in the breath. The BACtrack provides a digital result indicating the approximate BAC (Blood Alcohol Content) of the test subject. The BACtrack is easy to use; simply turn on the unit and begin testing in a matter of seconds.

Before you begin testing, please read this manual in its entirety and familiarize yourself with the BACtrack.

## **ALCOHOL AND ITS EFFECTS ON THE HUMAN BODY**

Alcohol is absorbed from the mouth, throat, stomach and intestines into the bloodstream.

Alcohol ingested by the human body can be detected in the breath because of its presence in the bloodstream.

Alcohol cannot be digested and it cannot be chemically changed in the bloodstream. As the blood flows through the lungs, alcohol in the bloodstream moves across the membranes of the lung's air sacs (alveoli) into the air. The concentration of the alcohol in the alveolar air is directly related to the concentration of the alcohol in the blood. As the alveolar air is exhaled, the alcohol in it can be detected by the breath alcohol testing device.

The alcohol concentration in the breath is related to that in the blood, and because of this, an individual's BAC can be determined by measuring alcohol in the breath. The ratio of breath alcohol to blood alcohol is generally estimated to be 2,100:1. Therefore, 2,100 milliliters (ml) of alveolar air will contain

approximately the same amount of alcohol as 1 ml of blood.

## **ALCOHOL IS A DRUG**

Alcohol is the chemical (ethanol or ethyl alcohol) resulting from the fermentation of grapes or grain. Alcohol is absorbed directly into your bloodstream. From your bloodstream, the fluids in your body tissues absorb the alcohol. Your brain is made up of a large concentration of fluids and will absorb a large amount of any alcohol you drink. Your liver eliminates the absorbed alcohol at its own rate of time and nothing you eat or drink can speed up the process. Your liver does this by oxidizing the alcohol (converting it into water and carbon dioxide). Coffee, food or any other “cure” will not sober you up; only time will do that.

## **HOW DOES ALCOHOL AFFECT MY BODY?**

Alcohol is a depressant. It has a relaxing effect on the muscles in your body. The muscles of your eyes relax and lose focus. Your eyesight will become fuzzy and you may experience double vision. Brain activity is slowed. Your judgment, reflexes, and coordination are all negatively affected.

Some vision impairments that occur when you have been drinking include:

- Narrowing of your field of vision
- Reduction in your depth perception
- Decreased ability to see in darkness
- Increased sensitivity to glare and a longer time for your eyes to readjust from the glare

Some mental impairment can occur when you have been drinking, including:

- Reduced awareness of danger
- Becoming overly confident and reckless
- Difficulty in making decisions
- Reduction in balance
- Slowed reflexes
- Impaired judgment

## **HOW DOES ALCOHOL AFFECT MY DRIVING?**

We can't emphasize enough how dangerous it is for you to drink and drive. Your vision and your brain are the most important factors in driving safely. If you jeopardize either by drinking, and then you drive, you are likely to be involved in a serious or fatal collision.

Do not use your BACtrack as a tool to determine whether you should operate a motor vehicle or equipment, or perform any other dangerous act. Do not drink and drive. Always have a designated driver when alcohol is being consumed.

## **EFFECTS OF ALCOHOL\***

### BAC | Dose-Specific Effects

- 0.02-0.03%BAC** Slight euphoria. Loss of shyness. Depressant effects are not apparent. Impairment possible in some individuals.
- 0.04-0.06%BAC** Feeling of well-being, relaxation, lower inhibitions and sensation of warmth. Euphoria. Some minor impairment of reasoning and memory. Lowering of caution. Driving skills may be impaired at this level of intoxication.
- 0.07-0.09%BAC** Slight impairment of balance, speech, vision, reaction time, and hearing. Euphoria. Judgment and self-control are reduced. Caution, reason and memory are impaired. Driving skills are always impaired at this level of intoxication and higher.
- 0.10-0.12%BAC** Significant impairment of motor coordination and loss of good judgment. Speech may be slurred. Balance, vision, reaction time and hearing will be impaired. Euphoria.
- 0.13-0.15%BAC** Gross motor impairment and lack of physical control. Blurred vision and major loss of balance. Euphoria is reduced and dysphoria (anxiety, restlessness) begins to appear.
- 0.16-0.20%BAC** Dysphoria predominates. Nausea may appear.
- 0.25%BAC** Need for assistance in walking. Total mental confusion. Dysphoria with nausea and some vomiting.
- 0.30%BAC** Loss of consciousness. Onset of coma. Possible death due to respiratory arrest\*\*.

The generally accepted legal standard for alcohol intoxication in the United States is 0.08%. However, your driving skills can be impaired at any level above 0.00% BAC. It is never safe to drink any amount of alcohol and drive.

\* The effects of alcohol intoxication are greatly influenced by individual variations among users. Some users will be intoxicated at a much lower BAC than shown on the previous page.

\*\* Death can occur at a lower BAC in some individuals.

## IMPORTANT!



For most accurate results, it's important to **wait at least 20 minutes after smoking, eating or drinking before testing.** This is a universal principle for all breathalyzers, not just yours. The reason being is that if you have recently consumed alcohol, the residual alcohol in your mouth is very high and can cause a false reading.

## COMPONENTS DIAGRAM

FRONT VIEW

FRONT LED LIGHT  
Light is on when unit is on

REAR LED  
LIGHT  
Light is  
on if in  
BACtrack  
App Mode

BLOW  
AREA

POWER  
BUTTON



BATTERY COVER (BACK)



## **PRODUCT OVERVIEW**

YOU CONTROL HOW YOUR BAC RESULTS ARE DELIVERED, EITHER:

1. To the screen directly on your BACtrack - this is Standalone mode. No results are saved or transmitted in this mode. OR
2. To the BACtrack App on your mobile device - this is BACtrack App mode. You have the option to save results in this mode.

NOTE: The blue LED light on the rear of your BACtrack will indicate which mode you are in. If the light is on, you are in BACtrack App mode. If the light is off, you are in Standalone mode. To switch from one mode to the other, hold the power button down for seven seconds.

## **STANDALONE OPERATION**

- STEP 1:** Install one AAA alkaline battery in the battery compartment.
- STEP 2:** If you would like to use a mouthpiece, attach it to your BACtrack. Note: Using a mouthpiece is optional.
- STEP 3:** Turn on your BACtrack by pressing the power button for one second. The front blue LED light indicates when it is on.

- STEP 4:** Your BACtrack will display “Warming Up” and then count down. When the countdown approaches 2, begin to inhale a deep breath.
- STEP 5:** When the countdown reaches zero, “BLOW” will flash on the screen. Blow steadily and consistently for six seconds through the mouthpiece - do not blow as hard as possible. Your BACtrack emits a beeping sound during the breath sample. Stop blowing when the beeping sound stops. There is a click at the end - that’s the air pump pulling air across the sensor.
- STEP 6:** Once the sensor has analyzed the breath sample, the estimated BAC value is displayed. Next, the ZeroLine feature will appear, showing approximately how long it will take for your estimated BAC level to return to 0.00% if no additional drinks are consumed. The estimated time is displayed in hours and minutes.

The screen will display a brief summary of how your alcohol level may be affecting your body.

Your BACtrack will turn off automatically in 10 seconds. You can also turn it off during the countdown by pressing and holding down power for 2 seconds. The front blue LED light will turn off.

## **BACtrack/APP OPERATION**

- STEP 1:** Install one AAA alkaline battery in the battery compartment.
- STEP 2:** If you would like to use a mouthpiece, attach it to your BACtrack. Note: Using a mouthpiece is optional.
- STEP 3:** Download the BACtrack App from the App Store or Google Play Store.
- STEP 4:** Go to Settings on your mobile device to confirm Bluetooth® is on; this will ensure your BACtrack will pair with the app.
- STEP 5:** Open the BACtrack App on your mobile device.
- STEP 6:** Press and hold the Power Button on your BACtrack for one second to turn on the device. The front blue LED light will turn on. If the rear blue LED light is off, hold the power button for seven seconds to switch to BACtrack App mode.

Once in BACtrack App mode, the app and your BACtrack will pair automatically. When the app pairs with your BACtrack, the app screen will momentarily show an image of your BACtrack.

**STEP 7:** Tap “BAC Test” to initiate the testing process. While the BACtrack sensor warms up, you have the opportunity to “Guess Your BAC.” This is optional and will not affect your final reading. Your BAC guess and actual result will be displayed so you can compare your perception to an actual number. Using this feature over time, you’ll notice you are much better at understanding how alcohol affects your body.

**STEP 8:** When the screen on your mobile device reads “Blow Now,” take a deep breath, and blow into your BACtrack continuously until all the blue segments are orange.

**STEP 9:** Once your BACtrack has analyzed the breath sample, it will transmit the reading to your mobile device where the BAC value will be displayed.

**STEP 10:** Press OK to view the ZeroLine® feature and other information about your BAC result. ZeroLine will tell you the approximate time when your estimated BAC level will return to 0.00% if no additional drinks are consumed.



Your BACtrack will power off automatically in 10 seconds. You can also turn it off at any time by with pressing the power button for two seconds.

Please keep your BACtrack App updated as we continuously add new features and options.

## **TROUBLESHOOTING**

### **LOW BATTERY**

Install a new alkaline AAA battery.

### **ERROR: TEMPERATURE**

If your BACtrack is powered on outside of the acceptable temperature range (0-40 °C or 32-104 °F), testing cannot be performed. Power off unit and retest once it has been stored in an acceptable environment.

### **ERROR: BLOW STEADILY FOR 6 SECONDS**

Please press the power button to restart the countdown cycle and retest.

### **ERROR: NO BLOW DETECTED**

Please press the power button to restart the countdown cycle and retest.

### **ERROR: MAX BAC EXCEEDED**

The estimated BAC exceeds the maximum measurable level of 0.30%. If you did not wait 20 minutes after your last drink, any residual alcohol in your mouth could create a false high reading.

### **SEARCHING FOR DEVICE**

BACtrack is in BACtrack App mode and is searching for the BACtrack app on a mobile device. You can toggle between Standalone and BACtrack App mode by pressing the power button for 7 seconds.

### **NO DEVICE FOUND**

BACtrack is in BACtrack App mode and cannot locate the

BACtrack app on a mobile device. Please make sure Bluetooth is enabled on the mobile device.

## **FAQs**

### **WHY IS THE REAR BLUE LED LIGHT ON?**

You are in BACtrack App mode. Your results will be delivered to your BACtrack app.

### **WHY ARE MY RESULTS NOT SHOWING UP ON THE LED SCREEN?**

You are not in Standalone mode. Hold the power button for seven seconds to switch modes.

### **WHY CAN'T THE APP FIND MY DEVICE?**

Your BACtrack is not in BACtrack App mode. Hold the power button for seven seconds to switch modes.

## **PRECAUTIONS**

1. Wait at least 20 minutes after drinking, eating or smoking before testing. Not observing this waiting period can cause inaccurate readings and damage the sensor.
2. Do not blow smoke, food, or liquids into your BACtrack because this will damage the sensor.
3. Do not test in areas with strong winds, smoke, or in an area where a large amount of alcohol is being consumed.
4. Avoid testing in the presence of any substances that contain methyl alcohol, isopropyl alcohol or acetone.

These substances may interfere with the results of the test.

5. Replace the AAA alkaline battery when the battery indicator icon reaches one bar. Caution: Risk of explosion if battery is replaced by an incorrect type . Dispose of used battery according to the instructions.
6. Send your BACtrack in for periodic calibration service as required. (See Calibration).
7. Your BACtrack is designed to be used in a temperature range of 32-104 °F (0-40 °C).
8. The BAC results from this product are not admissible in a court of law.
9. Do not use your BACtrack as a tool to determine whether you should operate a motor vehicle or equipment, or perform any other dangerous act.
10. Do not drink and drive. Always have a designated driver when alcohol is being consumed.

## **SPECIFICATIONS**

DIMENSIONS	2.21 x 1.875 x 0.66 inches (5.62 x 3.45 x 1.68 cm)
WEIGHT	2 oz (56g) With mouthpiece and battery
DETECTION RANGE	0.000 – 0.300 %BAC

POWER SUPPLY	One AAA alkaline battery
BATTERY LIFE	Approximately 300 tests
WARM UP TIME	10-20 seconds
RESPONSE TIME	10 - 20 seconds
OPERATING TEMPERATURE	32-104 °F (0-40 °C)

## **VERIFICATION AND CALIBRATION**

The BACtrack is calibrated during manufacture using advanced alcohol simulation equipment. Known alcohol concentrations are passed through the sensor to set baseline values for testing. During testing, the unit compares breath samples to these baseline values.

The accuracy of breath alcohol testers can fluctuate after six to twelve months of normal use depending on the number of tests performed and operating conditions.

If this product is providing inconsistent test results, is not providing any test results, or provides unusually high or low test results, the product should be recalibrated immediately by a trained professional.

The product should be recalibrated at least every six to twelve months. If the product is used every day, it may need to be recalibrated as frequently as every month.



## CALIBRATION INSTRUCTIONS

Please visit [www.bactrack.com/calibration](http://www.bactrack.com/calibration) or call 877.334.6876 for information on how to get your BACtrack recalibrated. During recalibration, a professional technician will reset the sensor baseline values and also perform a full diagnostic check to ensure the accuracy and reliability of the product.

## **ONE-YEAR LIMITED WARRANTY**

KHN Solutions' warranty obligation for this product are limited to the following: KHN Solutions warrants this product against defects in materials and workmanship under normal use for a period of ONE (1) YEAR from the date of retail purchase by the original end-user purchaser ("Warranty Period"). Except as provided in the preceding sentence or applicable law, KHN Solutions provides this product "as is". If a defect arises and a valid claim is received by KHN Solutions within the Warranty Period, at its option, KHN Solutions will either (1) repair the product, (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (3) refund the purchase price of the product. When a refund is given, the product for which the refund is provided must be returned to KHN Solutions and becomes KHN Solutions property. This warranty is limited to the original end-user purchaser and is not transferable to, or enforceable by, any subsequent owner.

## **EXCLUSIONS, LIMITATIONS, AND DISCLAIMERS**

KHN Solutions makes no warranties, express or implied, as to the ability of this product to determine whether, or the extent to which, a test subject's mental or physical functioning, or judgment, may be impaired by blood alcohol including whether the test subject is intoxicated under any definition of that word. KHN solutions expressly disclaims any liability for direct, indirect, incidental, special, or consequential damages of any nature under any legal theory. Any act or failure to act based on a reading from this product shall be at the test subject's or user's own risk. KHN Solutions assumes no responsibility for consequences to or of test subjects who use this product and later are shown to have been under the influence of alcohol or to have had their judgment or any mental or bodily function impaired by alcohol. Correlation between breath alcohol content and blood alcohol concentration depends on many variables, including environmental factors (such as air quality, wind, humidity, temperature, etc.) and health conditions of the test subject. A low BAC reading does not mean that the test subject's physical or mental performance or judgment (including reaction times) can respond to an emergency. The concentration of alcohol in the blood of a test subject cannot be exactly determined by using a breath alcohol screening product.

KHN Solutions does not warrant that the operation of the product will be error-free. KHN Solutions is not responsible for any consequences arising from failure to follow instructions or relating to the product's use. This warranty does not apply: (a) to consequences caused by accident, abuse, tampering, misuse, flood, fire, earthquake or other external causes; (b) to consequences caused by operating the product outside the

permitted or intended uses described by KHN Solutions; (c) to consequences caused by service performed by anyone who is not a representative of KHN Solutions or a KHN Solutions. Authorized Service Provider; or (d) to a product or part that has been modified to alter functionality or capability without the written permission of KHN Solutions.

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, KHN SOLUTIONS 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 KHN SOLUTIONS CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES SHALL BE LIMITED IN DURATION TO THE DURATION OF THE EXPRESS WARRANTY AND TO THE REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY KHN SOLUTIONS IN ITS SOLE DISCRETION.

No KHN Solutions reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty. If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, KHN SOLUTIONS INC. IS NOT RESPONSIBLE FOR DIRECT, SPECIAL,

INCIDENTAL OR CONSEQUENTIAL DAMAGES UNDER ANY LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE OR INCOME; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS FROM A CONTRACT); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL, OR LOSS OF REPUTATION.

This Breath Alcohol Tester is intended to measure alcohol in human breath. Readings obtained by this device are used in the diagnosis of alcohol intoxication.

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.

## **FCC REGULATORY COMPLIANCE**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable

protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by KHN Solutions Inc may void the user's authority to operate the equipment.

## **RF EXPOSURE WARNING STATEMENT**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. The information in this guide may change without notice. The manufacturer assumes no responsibility for any errors that may appear in this guide.

RSS-GEN, ISSUE 4, NOVEMBER 2014:

This device complies with ISEDC license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

Radiation Exposure Statement : This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

Cet appareil est conforme à Industrie Canada une licence standard RSS exonérée. Son fonctionnement est soumis aux deux conditions suivantes:

- 1- Cet appareil ne doit pas provoquer d'interférences.
- 2- Cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant provoquer un fonctionnement indésirable de l'appareil.

Énoncé d'exposition aux rayonnements : Cet équipement est conforme aux limites d'expositions aux rayonnements ioniques RSS-102 pour un environnement incontrôlé.

## **OBTAINING WARRANTY SERVICE**

Please be sure to read this instruction manual carefully if you believe your product is not operating properly. If you still feel that your product requires warranty service, please follow these instructions.

Obtain a Return Authorization (RA) number by emailing support@bactrack.com.

When shipping the product back to KHN Solutions, please package the product carefully and ship using a major carrier (UPS, FedEx, USPS, etc). To ensure proper credit for a returned item, be sure to obtain a delivery confirmation on the return shipment. The customer is responsible for all return shipping charges.

Include the following information with your returned product:

- Your Return Authorization number
- Name, address, and phone number as stated at the time of order
- A copy of your original sales receipt

**DO NOT DRINK AND DRIVE**

# USER MANUAL

[www.BACtrack.com](http://www.BACtrack.com)  
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