

# breath alcohol detector

TESTS BREATH FOR THE PRESENCE OF ALCOHOL



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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 Keychain Alcohol Detector is an alcohol screening device, used for the detection of alcohol in the breath. The provides a digital result, indicating the approximate BAC (Blood Alcohol Content) of the test subject. The Alcohol Detector is powered by one rechargeable lithium battery and is very easy to use. Simply turn on the unit and begin testing in a matter of seconds. However, before you begin testing, there are a few things you should know. Please take a moment to read your owner's manual in its entirety and familiarize yourself with the Alcohol Detector.

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 bloodstream as 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 (brain) 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.

## Track your B.A.C. – BREATHALYZER

## DOSE-SPECIFIC EFFECTS OF ALCOHOL

BAC	Dose-Specific Effects
0.01-0.02%	Slight euphoria. Loss of shyness. Depressant effects are not apparent. Impairment possible in some individuals.
0.02-0.03%	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.
0.04-0.05%	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.
0.06-0.08%	Significant impairment of motor coordination and loss of good judgment. Speech may be slurred. Balance, vision, reaction time and hearing will be impaired. Euphoria.

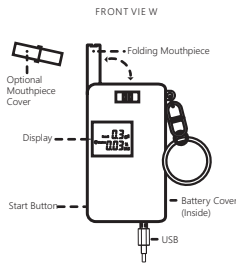
BAC	Dose-Specific Effects
0.09-0.10%	Gross motor impairment and lack of physical control. Blurred vision and major loss of balance. Euphoria is reduced and dysphoria (anxiety, restlessness) is beginning to appear.
0.15-0.19%	Dysphoria predominates. Nausea may appear.
0.20%	Needs assistance in walking. Total mental confusion. Dysphoria with nausea and some vomiting.
0.30%	Loss of consciousness.
0.40% and up	Onset of coma. Possible death due to respiratory arrest. **

1. Bailey, William J., orugine in American Society, 3rd ed., Minneapolis: Burgess, 1993  
 \*\*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 above.  
 \*Breath can accurately lower BAC in some individuals. The generally accepted legal standard for alcohol intoxication in the United States is 0.08%, however, your driving skills can be impaired at a level of 0.04% or lower; it is never safe to drink any amount of alcohol and drive.

## PREPARATION

Charge the Battery

## COMPONENTS DIAGRAM



## OPERATION

IMPORTANT !



Test subjects should wait 20 minutes after eating, drinking, or smoking before blowing into the Breathalyzer. Failure to wait 20 minutes can provide inaccurate test results and damage the sensor.

- STEP 1: (Optional) Attach a mouthpiece cover to the folding mouthpiece.
- STEP 2: Press the start button. The Breathalyzer will begin a countdown.
- STEP 3: When the countdown approaches 2, begin to inhale a deep breath.

Step 4: When the countdown reaches zero, the Breathalyzer will beep and a red dot will appear. Blow through the mouthpiece continuously for five seconds until the beep sound comes on and then stops.

STEP 5: Once the sensor has analyzed the breath sample, the estimated BAC value is displayed.

NOTE: For most accurate results, wait one minute between tests. When testing high alcohol levels, wait 3-5 between tests.

The user did not provide a sufficient breath sample. Please rest and blow steadily and continuously for 5 seconds.

Display shows 'E'. The sensor is damaged. Contact support for assistance.

Display shows 'Lo'. Low battery, charge the battery.

## SPECIFICATIONS

Dimensions	68 x 40 x 15 mm
Weight	30 grams
Sensor Technology	Advanced Semiconductor
Detection Range	0.00 - 0.19 %BAC 0.0-0.19 g/l
Power Supply	Rechargeable lithium battery (included)
Battery Life	Built 300 mAh Li-ion battery, can be used around 150 tests
Warm Up Time	10-15 seconds
Response Time	5 seconds
Operating Temperature	50 - 80 degrees Fahrenheit (10 - 30 Celsius)

This testing, the accuracy of this device was established at Blood Alcohol Concentrations (BAC) of 0.02 and 0.08, but not at greater concentrations. Additional laboratory testing has been performed at concentrations ranging from 0.00 - 0.19% BAC.

## PRECAUTIONS

- 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.
- Do not blow smoke, food, or liquids into the Breathalyzer as this will damage the sensor.
- Do not test in areas with strong winds, smoke, or in an area where a large amount of alcohol is being consumed.
- Send your tester in for periodic calibration service as required.
- The Breathalyzer is designed to be used in a temperature range of 50-80 degrees F (10-30 degrees C).
- 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.
- You cannot use the results of this product in court.
- Do not use the Breathalyzer 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.

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. Breathalyzer 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.

Breathalyzer Solutions does not warrant that the operation of the product will be error-free. Breathalyzer 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 Breathalyzer Solutions; (c) to consequences caused by service performed by anyone who is not a representative of Breathalyzer Solutions or a Breathalyzer 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 Breathalyzer 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 CONDI-