



# ***AlcoHAWK<sup>®</sup> Beacon***

## Owner's Manual

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# INTRODUCTION

## **Intended Use and Overview**

The AlcoHAWK® Beacon is a breath alcohol tester designed to test for the presence of alcohol in the breath. This product cannot determine the subject's exact blood alcohol concentration (BAC) and should not be relied upon for such purposes. Please read this entire manual before use.

## **Effects of Alcohol**

Variations among people and other factors, such as altitude and air temperature, affect the degree of intoxication. Some people may become intoxicated at low BAC levels. A low BAC on a breath alcohol tester does not mean that a person's reaction times can respond to any emergency. You should not drink alcohol and drive or use any machines after consuming alcohol. There is no safe way to drive under the influence of alcohol. Even one drink can make you unsafe.

<b>BAC</b>	<b>Dose-Specific Effects <sup>1</sup></b>
0.020-0.039% <sup>2</sup>	Generally no loss of coordination. Slight joy or loss of shyness. Depressant effects are not clear.
0.040-0.069%	General feelings of well-being, relaxation, shyness is reduced and sensation of warmth. Joy. Some minor impairment of reasoning and memory. Lowering of caution. Driving skills may be impaired.
0.070-0.099%	Slight impairment of balance, speech, vision, reaction time, and hearing. Joy. Judgment and self-control are reduced. Caution, reason and memory are impaired. Driving skills are always impaired.
0.100-0.129%	Major impairment of motor coordination and loss of good judgment. Speech may be slurred. Balance, vision, reaction time and hearing will be impaired. Joy.
0.130-0.159%	Gross motor impairment and lack of physical control. Blurred vision and major loss of balance. Joy reduced and state of feeling unwell begins to appear.
0.160-0.249%	Anxiety, restlessness predominates. Nausea may appear. Appearance of a "sloppy drunk."
0.250%-0.299%	Needs assistance in walking. Total mental confusion. State of feeling unwell with nausea and some vomiting.
0.300%-0.399%	Loss of consciousness.
0.400% +	Onset of coma. Possible death due to respiratory arrest. <sup>3</sup>

<sup>1</sup> Bailey, William J., Drug Use in American Society, 3rd ed., Minneapolis: Burgess, 1993.

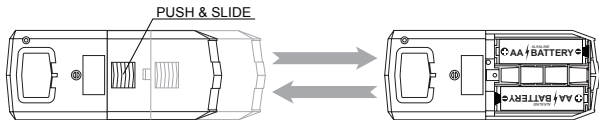
<sup>2</sup> Some individual's may experience impairment at BAC levels at .03% or even lower.

<sup>3</sup> Death can occur at a lower BAC level in some individuals.

# PREPARATION

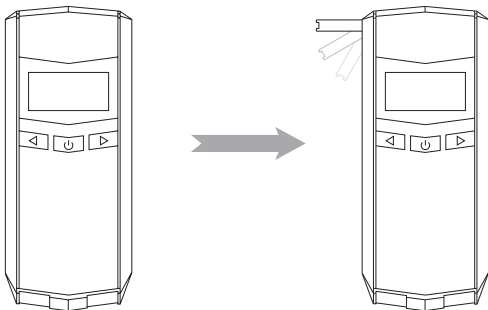
## Install the Batteries

Apply a small amount of pressure on the battery cover located on the back of the unit. Push down and slide away from the unit to release the cover. Install two (2) AA alkaline batteries and slide the cover back into place.

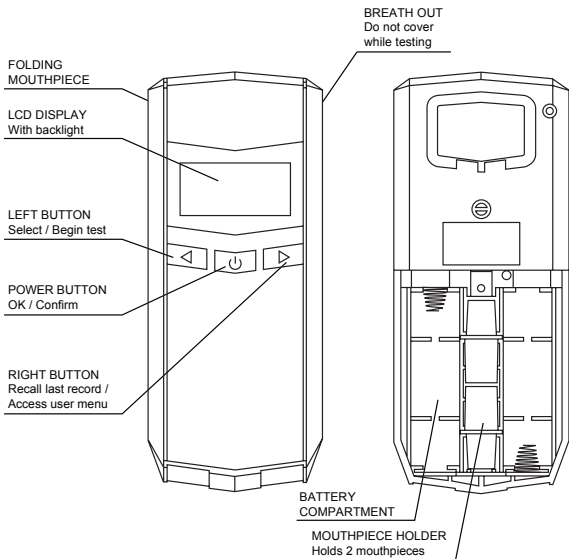


## Opening the Mouthpiece and Inserting a New Cover

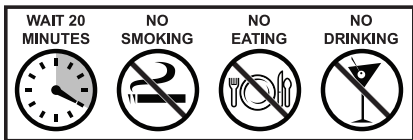
Pull up on the folding mouthpiece located on the left side of the unit until the mouthpiece extends straight out from the unit. If testing multiple individuals, insert a new cover over the mouthpiece before each test.



# COMPONENTS DIAGRAM



# OPERATION



Wait **20 minutes** after the subject smokes, eats or drinks before testing. Failure to wait 20 minutes can give inaccurate BAC readings and harm the sensor.

- Step 1)** Place a fitted cover over the mouthpiece each time you test another individual.
- Step 2)** If it has been more than 24 hours since the device was last used, **prime the sensor** by blowing into the mouthpiece for 4 to 5 seconds **before** turning on the device.
- Step 3)** **PRESS** the Power Button and **HOLD** for **one (1) second**. A single beep will sound and the device will display the room temperature.
- Note:** The device will shut off after 30 seconds of non-use.
- Step 4)** **PRESS** the Left Button and the device will count down from 99 as it prepares the sensor for testing.
- Note:** The device will restart a count down from 10 if the sensor is not ready within the first countdown.
- Step 5)** **WAIT** until the **unit displays "rdY"** and you hear a **SINGLE BEEP**. Take a **DEEP BREATH AND BLOW STEADILY** for at least 5 seconds. The unit will display "bL" and count from 1 to 5 while you blow. A **SINGLE BEEP** sounds to signal completion of the testing. Your estimated BAC will be displayed in the LCD and the backlight indicates the alert level.

**Note:** The device will shut off after 10 seconds of non-use.

## READ THE RESULTS

The result is an estimate of the subject's BAC. A breath alcohol tester cannot determine the exact BAC in the blood of the subject. Correlation between BrAC and BAC depends on many factors, such as temperature and health conditions. Only use this device to screen for the presence of alcohol.

Many people consider a 0.02% BAC or greater a positive test for alcohol in “zero tolerance” screening. Most states have 0.08% BAC as the legal limit for tasks such as operating a motor vehicle. Some states prohibit driving commercial vehicles or any vessel with a 0.04% BAC or higher. Many states prosecute individuals for driving under the influence at any level.

LCD Backlight Color	Alcohol Level
Green	0.00 - 0.01% BAC (0.00 - 0.10 ‰BAC, 0.00 - 0.005 mg/l)
Yellow	Between 0.01% BAC (0.00 - 0.10 ‰BAC, 0.00 - 0.005 mg/l) and alert level
Red	Equal to or greater than alert level

**Note:** Alert level is adjustable, refer to the *Set Alert Level* section for guidance.

## ERROR MESSAGES

Error Message	Cause and Course of Action
Flo	The unit was not able to collect a deep lung air sample because of a short blow. Make sure you blow softly and continuously until the test is complete. Repeat operation steps 1 – 5 to perform another test.



<b>Error Message</b>	<b>Cause and Course of Action</b>
<b>Snr</b>	There has been an error with the sensor. This can occur if the test subject does not wait at least 20 minutes after smoking, eating or drinking before using the unit or if the unit has not been used for an extended period of time. Press the Power On/Off button once to turn off the unit and repeat operation steps 1 – 5. If this message is displayed four or more consecutive times, the unit may need to be serviced.
<b>rEP</b>	The unit did not detect an even alcohol concentration in the breath sample. This can occur if the user varies the blowing force when performing a test or if the exhaust port is obstructed. Repeat operation steps 1 – 5 to perform another test.
<b>H</b>	The unit detected a very high alcohol concentration (above 0.40% BAC).
<b>Lo</b>	Low Battery. Install two (2) new AA batteries.
<b>Err</b>	The sensor has sustained damage; please contact us for further support.

## **RECALL LAST RESULT**

Follow these directions to recall your last test result. From the main screen (temperature display) press the Left Button one (1) time. Your last test result will display on-screen.

## **SET TEMPERATURE DISPLAY FORMAT**

Follow these steps to set the temperature display format to Fahrenheit °F or Celsius °C. The default setting is Fahrenheit °F.

- Step 1)** From the main screen (temperature display) press the Right Button for two (2) seconds until “USr” is displayed on-screen.
- Step 2)** Press the Power Button one (1) time.
- Step 3)** Press the Left Button to choose your desired format:

Value	Meaning
F	Fahrenheit °F
C	Celsius °C

**Step 4)** Press the Power Button to confirm your setting and then press the Right Button to return to the “USr” screen.

## SET BAC RESULT DISPLAY FORMAT

Follow these steps to set the BAC result display format to %BAC, ‰BAC, or mg/l. The default setting is %BAC.

**Step 1)** From the main screen (temperature display) press the Right Button for two (2) seconds until “USr” is displayed on-screen.

**Step 2)** Press the Power Button two (2) times.

**Step 3)** Press the Left Button to choose your desired format:

Value	Meaning
0	‰BAC
1	mg/l
2	%BAC

**Step 4)** Press the Power Button to confirm your setting and then press the Right Button to return to the “USr” screen.

## SET BAC ALERT LEVEL

Follow these steps to set the BAC alert level to 0.02, 0.03, 0.05, or 0.08 (assuming the display format is set to %BAC). The default setting is 0.05.

**Step 1)** From the main screen (temperature display) press the Right Button for two (2) seconds until “USr” is displayed on-screen.

**Step 2)** Press the Power Button three (3) times.

**Step 3)** Press the Left Button to choose your desired level:

<b>Value</b>	<b>Meaning</b>
2	Set alert level to 0.02
3	Set alert level to 0.03
5	Set alert level to 0.05
8	Set alert level to 0.08

**Note:** These levels are assuming that your display format is set to %BAC.

**Step 4)** Press the Power Button to confirm your setting and then press the Right Button to return to the “USr” screen.

## **SET BEEP WHEN BLOWING**

Follow these steps to enable or disable the beep when blowing. The default setting is no beep when blowing.

**Step 1)** From the main screen (temperature display) press the Right Button for two (2) seconds until “USr” is displayed on-screen.

**Step 2)** Press the Power Button four (4) times.

**Step 3)** Press the Left Button to choose your desired setting:

<b>Value</b>	<b>Meaning</b>
0	No beep when blowing
1	Beep when blowing

**Step 4)** Press the Power Button to confirm your setting and then press the Right Button to return to the “USr” screen.

# PRECAUTIONS



1. **Wait at least 20 minutes** after drinking, smoking and eating before testing.
2. Do not test in strong winds or in a closed room with smoke or alcohol present.
3. When the unit displays “Lo”, install two (2) new AA batteries.
4. Do not blow smoke, food or liquid into the unit.
5. Only use the unit in a temperature range of 10 - 40°C or 50 - 104°F. Operation above or below this range may affect the results.
6. 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.
7. Conditions that increase the amount of ketones on the breath, such as diabetes and low caloric intake, may cause a false positive test.
8. BAC changes over time depending on many factors. BAC at one time can differ from BAC a few minutes later.
9. Do not use this unit with an ignition interlock device or while inside a vehicle.
10. You cannot use the results of this unit in court of law.
11. Do not use this unit to determine if you or anyone else can operate any vehicle or machinery.
12. Do not let yourself or anyone else drink and drive. Always use a designated driver when you or anyone else drinks alcohol.

# SPECIFICATIONS

<b>Dimensions</b>	4.6" x 2" x .71" (118 mm x 50 mm x 18 mm)
<b>Weight</b>	2.1 oz (60 g) without batteries; 3.7 oz (105 g) with batteries
<b>Housing</b>	Shock resistant, molded plastic with glass front
<b>Power Supply</b>	Two (2) AA alkaline batteries
<b>Battery Life</b>	200-300 tests <sup>1</sup>
<b>Sensor Technology</b>	Sensitive Semiconductor Sensor
<b>Blowing Time</b>	5 seconds
<b>Response Time</b>	5-6 seconds <sup>1</sup>
<b>Display</b>	LCD Display with backlight
<b>Operating Temperature</b>	10 - 40°C (50 - 104°F)
<b>Detection Range</b>	0.00 - 0.40% BAC (0.00 - 4.00 ‰BAC or 0.00 - 2.00 mg/l)
<b>Air Sample</b>	5 seconds
<b>Operation</b>	3 buttons
<b>Warranty</b>	1 Year Limited Warranty

<sup>1</sup> Estimates, results may vary.

## CALIBRATION

Calibration of the AlcoHAWK® Beacon occurs during manufacturing using advanced alcohol simulation equipment. The manufacturer passes known alcohol concentrations through the sensor to set baseline values for testing. During testing, the unit compares users' breath samples to these baseline values. If the verification determines that the BAC is not consistent with actual BAC levels, a technician calibrates the unit. The accuracy of breath alcohol testers can fluctuate over time, depending on frequency of use and operating conditions.

If the unit is providing inconsistent results or unusually high or low readings, the unit may need calibration. **A general rule of thumb is to have the unit calibrated every 300 tests (you may view the test counter by pressing the Right Button twice when the room temperature is displayed). At a minimum, a technician should**

**recalibrate this unit at least every six to twelve months. More frequent calibrations may be required depending on frequency of use; such as once per month if the unit is used daily.**

Please visit [www.alcoholhawk.com](http://www.alcoholhawk.com) or call 888-399-1687 for calibration or support.

## **ONE-YEAR LIMITED WARRANTY**

Quest Products (Quest) warrants this unit to be free from defects in workmanship or material (excluding calibration) under normal use for ONE (1) YEAR from the date of retail purchase by the original buyer ("Warranty Period").

**The warranty covers parts and labor on covered repairs and ground freight back to the customer (USA only). Except as provided above, Quest provides this product "as is."**

**If a defect arises and Quest receives a valid claim within the Warranty Period, at its option, Quest will either (1) repair the product, (2) exchange the product with a product that is new or which has been built from new or serviceable used parts and functionally equivalent to the original product, or (3) refund the purchase price of the product. If a refund is given, the returned product becomes Quest's property. The warranty does not cover shipping to Quest. The warranty is void if anyone tampers or abuses the unit.**

This warranty is limited to the original consumer purchaser and can not be transferred to any other owner.

**For warranty service please follow these instructions:**

1. Call 888-399-1687 or email [service@alcoholhawk.com](mailto:service@alcoholhawk.com) to obtain an RMA number. Return the unit postage paid, insured and in proper box.
2. You should obtain a proof of delivery receipt. You must pay the cost

for shipping the unit to us.

3. You must enclose the following with the unit:
  - a. The completed RMA form (available at [www.alcohawk.com/support](http://www.alcohawk.com/support))
  - b. Your name, return address and description of the problem. (No PO Box)
  - c. Your phone number to reach you during the day.
  - d. A copy of your sales receipt or invoice.

## **DISCLAIMER**

Quest Products (Quest) makes no warranties, expressed or implied, as to the ability of this unit to determine whether, or to the extent to which, a test subject's mental or physical functionality, or judgment, is impaired by blood alcohol including whether the test subject is intoxicated, under any definition of that word. Quest expressly disclaims any liability for incidental, special, or consequential damages of any nature under any legal theory. Any act or failure to act based upon a reading from this product is at the test subject's or user's own risk. Quest assumes no responsibility for consequences to users or test subjects who use this product and are later under the influence of alcohol or to have had their judgment or any mental or bodily function impaired by alcohol. Correlation between BrAC and BAC depends on many variables, such as temperature and health conditions of the test subject. A safe or low BAC reading does not mean that the test subject's physical or mental performance or judgment (including reaction times) can respond to any emergency encountered. A breath alcohol tester cannot determine the exact concentration of alcohol in the blood of a test subject.

Quest does not warrant that the operation of the product will be error-free. Quest 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 Quest; (c) to consequences caused by service performed by anyone who is not a representative of Quest or a Quest Authorized Service Provider; or (d) to a product or part that has been modified to alter functionality or capability without the written permission of Quest.

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

Quest does not authorize any Quest reseller, agent, or employee to make any modification, extension, or addition to this warranty. If anyone determines any terms 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, QUEST 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.

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 where the product was purchased.

**DO NOT DRINK ALCOHOL AND DRIVE**

**ALWAYS USE A DESIGNATED DRIVER**  
**AFTER DRINKING ALCOHOL**

**BE SAFE AND RESPONSIBLE**





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