



# Instruction Manual

## START HERE

### AlcoSense Zero Instruction Manual

Thank you for purchasing your new AlcoSense Zero Breathalyser.

As you know, you never can tell how long it takes for alcohol to clear from your body after having a drink. It depends on many variables including body mass, time of day, food intake and even if you have a cold.

Road safety is our primary concern, specifically making it easy for you to know when you are clear of alcohol. With only one-eighth of the English limit in your system you are 37% more likely to be involved in a fatal accident than when completely sober. AlcoSense gives you the tools to make an informed decision about when the alcohol has cleared your system.

Like me, many responsible drivers use the AlcoSense breathalyser to help make sure they're OK to drive the morning after. Thank you again for purchasing this product and I'm sure you will be delighted with it.

Yours sincerely,



Hunter Abbott, Managing Director

**Important - Please read**  
It is safest to drive when you have no alcohol left in your blood stream. As a result we only recommend driving when the AlcoSense breathalyser reads 'LO'. Before using the AlcoSense breathalyser you agree you have read the operating instructions & are aware of the legal alcohol limit in your jurisdiction. The manufacturer distributors and sellers of this product exclude all liability for improper use or loss or damage caused by actions taken by you after use of this product. Please be aware of the drink drive limit in your jurisdiction.

AlcoSense Zero User Manual Version 1.1

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#### How Breathalysers Work

Breathalysers work by measuring the concentration of alcohol vapour in your breath. Contrary to popular belief the alcohol is not coming from residue in your mouth but is actually evaporating from the blood that passes through your lungs when you breathe. The amount of alcohol evaporating from your lungs is directly proportional to the amount of alcohol in your blood stream making it possible to accurately calculate the per mil Blood Alcohol Concentration (%BAC) or Milligrams of alcohol per Litre of Breath (mg/l) and therefore your level of intoxication.

#### How Alcohol Is Processed by the Body

When you drink, alcohol is absorbed into the blood stream through your mouth and throat but mostly through the stomach and small intestine. The more you drink the more alcohol is absorbed by the body and the higher your BAC or mg/l reading will become. Between 20 and 90 minutes after the alcohol is consumed it is distributed equally around the body through the blood stream. This is known as the Point of Equilibrium.

As blood flows round the body around 90% of the alcohol it contains is broken down in to water and carbon dioxide by the liver in a process called Oxidation. The remaining 10% of the alcohol is passed from the body through the lungs and kidneys. A healthy liver typically breaks down alcohol at a rate of one unit of alcohol per hour but the more alcohol that is consumed the longer it can take for the liver to process each unit.

When you stop drinking your level of intoxication may stay constant or if you have been drinking heavily it could even increase for around 90 minutes afterwards. This is because of the time it takes for alcohol to reach the bloodstream from the time you actually had the drink. If you have eaten food this can also increase the time, as the release of alcohol into the bloodstream can be slowed by it being absorbed by food in the stomach. This is the reason why we do not recommend using the breathalyser just after finishing drinking because there are too many factors that can influence the reading. The ideal time is the morning after.

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#### Do's and don'ts: Things That Can Affect the Reading of Your Breathalyser

There are some factors that can affect the reading of breathalysers whether it be the AlcoSense breathalyser or a police system. Please note that certain medications and conditions including diabetes can give false positive readings. If you find you have a positive reading when you have not drunk alcohol please contact us for assistance.

##### Do:

- Use the breathalyser the morning after a few drinks.
- Read the instructions carefully.
- Phone us if you have any difficulties.
- Only drive when the AlcoSense says LO and you feel 100%. Any amount of alcohol in your system will affect your ability to drive.
- Leave a minimum of 5 minutes between tests. Do not perform more than 5 tests in one hour and no more than 20 tests in 24 hours. More frequent testing can cause a build-up of breath condensation or alcohol vapour in the breathalyser which can temporarily affect accuracy.

##### Don't:

- Blow into the breathalyser within 10 minutes of drinking, high levels of alcohol in the mouth can permanently damage the sensor.
- Perform a breath test within 90 minutes of drinking. Blood alcohol levels can rise for up to 90 minutes after drinking (see page 3 for more info). Results taken before this time can rise or fall quickly.
- Use the breathalyser for at least 30 minutes after using mouthwash, breath spray, cough medicine or anything else that may contain alcohol - you may get a false positive reading.
- Use the breathalyser for at least 30 minutes after having a cigarette or eating ripe fruit - you may get a false positive reading.
- Perform a test in dirty air, i.e. a smokey room or pub.
- Use the breathalyser if you are breathing quickly (for example, after running up the stairs) or have been holding your breath. This can falsely lower or raise the reading respectively. Wait until you are breathing normally again.
- Perform two tests sequentially, you may get a variation between readings. This is because it can take a few minutes for the alcohol concentration inside the lungs to stabilise again after the first test, or residual alcohol vapour in the breathalyser may affect the accuracy of the second reading.

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#### Getting Started

This section will take you step by step through the basics of using your new AlcoSense Breathalyser, namely:

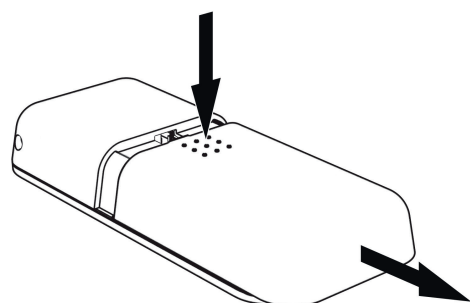
1. Unpacking the box.
2. Preparing it for use for the first time:
  - a) Installing the batteries
  - b) Cleaning the sensor
3. How to perform a breath test and understanding the results.
4. Things that can affect the readings.
5. Troubleshooting any problems.

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#### Installing the Batteries

1. Turn the AlcoSense breathalyser over so the back is facing you. Following the diagram below remove the battery compartment cover.
2. Insert three **new, good quality Alkaline** 1.5v AAA batteries into the slots in the battery compartment making sure that the batteries are inserted the right way round as indicated in the battery compartment.
3. The unit will automatically start to clean the sensor which takes 120 seconds. This should be performed once every four weeks or after a period of several weeks or more without use.
4. Put the battery compartment cover back on again following the diagram below but in reverse.

**IMPORTANT:** When replacing the batteries only use new, good quality branded batteries. Never use batteries previously used elsewhere or a mixture of new and used batteries. Although the battery voltage indicator may show OK, under load the battery power may collapse. This could affect the accuracy of the readings.



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#### Manually Cleaning the Sensor

We recommend performing a clean once every 4-6 weeks, or if the breathalyser has not been used for a period of time.

To clean the sensor remove the batteries then re-insert them. "Clean" will flash on the screen and it will count down from 120 to 0 seconds. This process increases the accuracy of your breathalyser by removing any oxidation or contaminants which could build up on the sensor.

Please note that the first test performed after a clean may give a slightly higher result or show a small amount of alcohol present when there is none due to vapour released during cleaning.

The cleaning process uses a significant amount of power from the batteries. If you clean the sensor several times in a row you can exhaust your batteries. If you have recently performed a clean and wish to skip the process when replacing the batteries this can be done so by double clicking the power button.

#### Automatic Sensor Clean

The unit will automatically clean the sensor every 25 tests. If you wish to skip the cleaning process double click the power button while it is in process.

#### Turning your AlcoSense On and Off

You can turn your AlcoSense on and off by pressing and holding the power key, signified by the power logo below, on the front of the unit



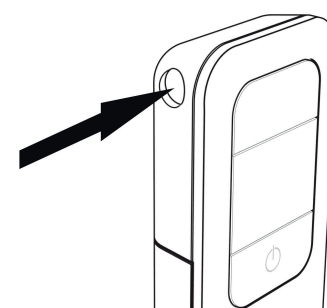
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#### How to Perform a Breath Test

Performing a breath test is easy and can be performed at any time, anywhere quickly and easily. Responsible drivers find the AlcoSense breathalyser particularly useful to help make sure they are clear of alcohol the morning after.

**AlcoSense is a sensitive measurement device. Performing a breath test less than 10 minutes after drinking risks blowing high levels of alcohol directly from your mouth into the system causing permanent damage to the sensor and causing the system to read inaccurately. Blood alcohol levels can rise for up to 90 minutes after drinking, for best results only use after this period and ideally the morning after. Do not blow directly into the blow hole without a blow tube – this can damage the sensor and significantly reduce the lifetime of your unit.**

1. Insert a new blow tube in the hole on the left side of the breathalyser, shown in the image below. Re-using blow tubes can decrease the accuracy of your readings and un-hygienic. Do not use drinking straws or similar as the diameter may be different giving a bad fit, or split causing air to escape and reducing the accuracy of your readings. Replacement tubes are inexpensive can be purchased from [alcosense.co.uk](http://alcosense.co.uk) or an AlcoSense retailer.



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2. Turn the unit on by pressing and holding the power key. The unit will display the number of tests performed on the screen for three seconds, then it will display "Wait" for 30 to 90 seconds. This time is used to pre-heat the sensor to operating temperature and check the sensor condition. It will then count down from 9 to 0.

3. The AlcoSense will then beep and flash BLOW on the screen. At this point you must blow into the AlcoSense breathalyser. **IMPORTANT: when blowing use a pressure similar to a sigh.** When you have the correct pressure the breathalyser will make a constant beep. You must keep blowing for around 5-7 seconds until the unit makes a double beep.

4. Your result will be displayed.

**Please note:** Leave a minimum of 5 minutes between tests. Do not perform more than 5 tests in one hour and no more than 20 tests in 24 hours. More frequent testing can cause a build-up of breath condensation or alcohol vapour in the breathalyser which can temporarily affect accuracy. If you perform two tests sequentially, you may get a variation between readings for the above reasons and that it can take a few minutes for the alcohol concentration inside the lungs to stabilise again after the first test.

#### Possible Error Screens



Either the pressure you blew at was too variable or you did not blow for long enough. Take a deep breath before blowing and blow out at a consistent pressure like you're taking a sigh until you hear the double beep.



Either the breathalyser did not detect your breath as the pressure was too low, or you did not blow into the breathalyser within 10 seconds of it starting to say blow on the screen.

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