



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

1

Contents

- How Breathalysers Work 3
- How Alcohol is Processed by the Body 3
- Do's and don'ts: Things That Breathalyser Can Affect the Reading of Your 4
- Getting Started 5
- Installing the Batteries 6
- Manually Cleaning the Sensor 7
- How to Perform a Breath Test 8-9
- Possible Error Screens 9
- Understanding the Results 10
- Drink Drive Limits 11
- Maintaining your AlcoSense Breathalyser 12
- Recalibration 13
- Troubleshooting 14-15
- Technical specifications 16
- Legal & Warranty 17
- Contact us 18

2

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.

3

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.

4

Getting Started

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

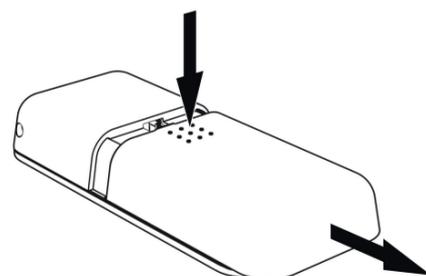
1. Unpacking the box.
2. Preparing it for use for the first time:
 - a) Installing the batteries
 - b) Cleaning the sensor
3. How to perform a breath test and understanding the results.
4. Things that can affect the readings.
5. Troubleshooting any problems.

5

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.



6

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



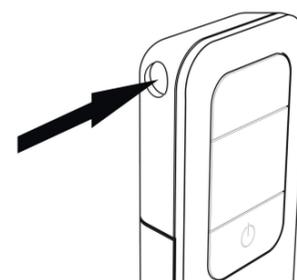
7

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 or an AlcoSense retailer.



8

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.

9

Understanding the Results

10

Description	Screen	Explanation
LO Less than 0.2%BAC		Zero or Trace Alcohol There is either no alcohol in the sample or such a small amount it is negligible. The reading is well below the legal drink drive limit.
Between 0.2%BAC and 1.5%BAC		Alcohol Present - DO NOT DRIVE Your reading of 0.2%BAC and 1.5%BAC is displayed on the screen. See the limits table on the following page. Alcohol is present in the sample - DO NOT DRIVE .
Above 1.5%BAC		The sample's alcohol level is above 1.5%BAC and is outside the reading range of this device. DO NOT DRIVE .
Breath flow error		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. If you have any problems please call us.
Error in Reading		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. If you still experience problems after several attempts please contact us.

I've done a lot of tests in quick succession and I've got a strange result

15

This can be caused by a build-up of breath condensation or alcohol vapour from previous tests in the breathalyser which sometimes cause temporary inaccuracy until it evaporates, this can affect any breathalyser, including Police breathalysers. To avoid this leave a minimum of 5 minutes between tests and do not perform more than 5 tests in one hour, and no more than 20 tests in 24 hours. Always use a new mouthpiece for each test. If you do experience this problem the condensation should evaporate within 2 hours at normal room temperature and the breathalyser will return to normal operation.

My breathalyser started to do a test by itself and displayed an error

This can happen if the breathalyser is used in a noisy environment over 95dB. When turned on and ready to receive a blow sample pressure changes as a result of loud noises can occasionally cause the unit to think breath is entering the device, and then show a blow error. If this occurs please move to a quieter area away from the source of the sound and attempt the test again.

Any other issues

Please check the www.alcosense.co.uk support section for more troubleshooting advice. If you still experience problems after this point please contact us on 0800 195 0088, Mon to Fri 9am to 5pm.

For any other queries please visit www.alcosense.co.uk/zero or call us on 0800 195 0088 from inside the UK, or on +44 1628 778885 from outside the UK.

Drink Drive Limits

11

With only 0.1%BAC in your system you are 37% more likely to be involved in a fatal accident than when sober. As a result do not drive with any alcohol in your system. The limits below are accurate as of October 2017 (E&OE), but can change. Please check with your local road authority before use.

Region	Limit	Do not drive if your reading is above
Scotland	0.5%BAC	0.3%BAC
England, Wales & I.o.Man	0.8%BAC	0.6%BAC
Northern Ireland*	0.8%BAC	0.6%BAC
Rep. of Ireland	0.5%BAC	0.3%BAC
Rep. of Ireland (pro drivers)	0.2%BAC	LO
Channel Islands	0.5%BAC	0.3%BAC

*As of October 2017 the Northern Irish Parliament are currently debating reducing their limit to 0.5%BAC.

The AlcoSense Zero is accurate to +/-0.2%BAC. This means that taking into account all variables the reading shown could be 0.2%BAC lower or higher than the actual reading. For example, if you see 0.6%BAC there is a possibility that you might have a true reading of 0.8%BAC. As a result always add 0.2%BAC to the reading you see on screen to be safe and only ever drive when you are clear of alcohol and feel 100%.

Technical specifications

16

Specifications	Limit
Reading Range	0.0%BAC to 1.5%BAC, results below 0.2%BAC will display as "LO"
Accuracy	+/- 0.2%BAC
Operating Temperature	5°C to 40°C
Storage Temperatures	-10°C to 50°C
Storage conditions	Store in a cool dry place out of direct sunlight
Calibration Intervals	12 months or 300 tests, whichever comes first
Sensor	Semi-Conductor

Maintaining your AlcoSense Breathalyser

Keep it Clean

To keep your AlcoSense in tip top condition we recommend keeping it clean using a soft dry cloth. We recommend keeping your unit safe using the AlcoSense carry case which is sold separately from alcosense.co.uk and AlcoSense retailers.

Clean the Sensor

Every 4-6 weeks or if the unit has not been used for a period of time, perform a sensor clean. This can be triggered by removing the batteries, waiting 10 seconds and re-inserting them.

Be Careful

Take care not to drop the AlcoSense breathalyser as sudden knocks can affect the unit's accuracy. If you have dropped your AlcoSense and feel that it is not reading correctly please contact us to arrange to have the unit serviced. A protective carry case is sold separately at alcosense.co.uk

Technical Support

If you have any queries which are not covered in this manual or need assistance using your unit please call our technical support number Monday to Friday 9am to 5.30pm. When calling please make sure you have your breathalyser to hand.

Re-Calibration

Like any breathalyser, whether for Police use or otherwise, your AlcoSense will require re-calibration after a period of use. We recommend your AlcoSense breathalyser should be re-calibrated once a year or every 300 tests, whichever comes first. If you do not have your breathalyser calibrated within these schedules it may read inaccurately. See the Recalibration section for more information.

Note on Environmental Protection

After implementation of the European Directive 2002/96/EU in the national legal system, the following applies: Electrical and electronic devices may not be disposed of with domestic waste. Consumers are obliged by law to return electrical and electronic devices at the end of their service lives to the public collecting points set up for the purpose or point of sale. Details to this are defined by the national law of the respective country. This symbol of the product, packaging or instruction manual indicates that this product is subject to these regulations. By Recycling, re-using the materials or other forms of utilising old devices, you are making an important contribution to protecting our environment.

Although every effort has been made to ensure that the contents of this manual are accurate and reliable Now Group UK Ltd accept no liability for errors or omissions and we reserve the right to change information without notice.



AlcoSense limited warranty

WARRANTOR

This Limited Warranty is granted by and this Limitation of Liability is stipulated for the benefit of AlcoSense, a trade mark of Now Group UK Ltd, at the address displayed on www.alcosense.co.uk

WHAT THIS WARRANTY COVERS

1) Now Group UK Ltd. ("AlcoSense") warrants to you that the Hardware will be free from defects in workmanship and materials under normal use ("Defects") for a period of one (1) year (unless the country of purchase requires a longer period under local legislation) from the date that the Hardware was first purchased by you from an authorised AlcoSense dealer ("Warranty Period"). During the Warranty Period the Hardware will be repaired or replaced at AlcoSense's choice ("Limited Warranty") without charge to you for either parts or labour. This Limited Warranty covers the replacement of the Hardware only. If the Hardware is repaired after the Warranty Period has expired (at your cost), the Warranty Period for the repair will expire six (6) months after the date of repair.

WHAT THIS WARRANTY DOES NOT COVER

2) The Limited Warranty does not apply to normal wear and tear, does not apply when the Hardware is opened or repaired by someone not authorised by AlcoSense and does not cover repair or replacement of any Hardware or part thereof damaged by: misuse, moisture, liquids, proximity or exposure to heat and accident, abuse, non-compliance with the instructions supplied with the Hardware, neglect or misapplication. The Limited Warranty does not cover physical damage to the surface of the Hardware or calibration of the Hardware.

HOW TO MAKE A WARRANTY CLAIM

3) In order to make a claim of a Defect, you must contact AlcoSense by email or telephone during the Warranty Period via www.AlcoSense.com to explain the Defect and to obtain an RMA number (Return Materials Authorisation) if necessary. You must return the Hardware during the Warranty Period, along with an explanation of the Defect, to the address provided to you by AlcoSense. If a defect arises and a valid claim under this Limited Warranty is received by AlcoSense after the first one hundred and eighty (180) days of the Warranty Period, AlcoSense is entitled to charge you for any reasonable shipping and handling costs made in connection with the repair or replacement of the Hardware. You must comply with any other return procedures stipulated by AlcoSense, if any.

12

Recalibration

Like any breathalyser, whether for Police use or otherwise, your AlcoSense will require re-calibration after a period of use. We recommend your AlcoSense breathalyser should be re-calibrated once a year or every 300 tests, whichever comes first. If you do not have your breathalyser calibrated within these schedules it may read inaccurately.

When you turn your breathalyser on it will display how many tests it has done during the first 3 seconds. After 300 tests your breathalyser will display "Recalibrate Now" on the screen. Recalibration is a chargeable service, but necessary to maintain the accuracy of your breathalyser.

When this appears, go to www.alcosense.co.uk/cal to arrange your calibration.

Accessory	Description	Price*
Protective Carry Case	Keep your AlcoSense breathalyser safe and sound in this beautiful carry case	£9.99
Pack of 20 Spare blow tubes	Pack of 20 blow tubes for breath tests	£4.99

*Subject to change and may vary by retailer

YOUR LEGAL RIGHTS

18

4) Some countries may not allow the exclusion or limitation of damages. If any part of this Limited Warranty is held to be invalid or unenforceable, the remainder of the Limited Warranty shall nonetheless remain in full force and effect.
5) This Limited Warranty is the only express warranty made to you and is provided in lieu of any other express warranties or similar obligations (if any) created by any advertising, documentation, packaging, or other communications.
6) Except for the Limited Warranty and to the maximum extent permitted by applicable law, AlcoSense and its suppliers provide the Hardware "AS IS AND WITH ALL FAULTS", and hereby disclaim all other warranties and conditions, whether express, implied or statutory, including, but not limited to, any (if any) implied warranties, duties or conditions of satisfactory quality, of fitness for a particular purpose, of reliability or availability, of accuracy or completeness of responses, of results, of workmanlike effort, of lack of viruses, and of reasonable care and skill, all with regard to the Hardware, and the provision of or failure to provide support or other services, information, software, and related content through the Hardware or otherwise arising out of the use of the Hardware. Also, there is no warranty or condition of quiet enjoyment, quiet possession, or non-infringement with regard to the Hardware. This exclusion does not apply to (i) any implied condition as to title and (ii) any implied warranty as to conformity with description.
7) This Limited Warranty does not affect any legal rights under applicable national legislation governing the sale of consumer goods.
8) This Limited Warranty cannot be transferred to any other person.

LIMITATION OF LIABILITY

1) Neither Now Group UK Ltd nor its suppliers shall be liable to you or to any third party for any damages either direct, indirect, incidental, consequential or otherwise (including in each case, but not limited to, damages for the inability to use the equipment, loss of business, loss of profits, business interruption or the like) arising out of the use of or inability to use the Hardware even if Now Group UK Ltd has been advised of the possibility of such damages.
2) Notwithstanding any damages that you might incur for any reason whatsoever (including, without limitation, all damages referenced herein and all direct or general damages in contract or anything else), the entire liability of Now Group UK Ltd and any of its suppliers shall be limited to the amount actually paid by you for the Hardware.
3) Now Group UK Ltd shall not be liable for (i) any fraud on the part of its employees and/or agents; or (ii) any fraudulent misrepresentation on the part of its employees and/or agents.
4) Notwithstanding the above, neither party's liability for death or personal injury resulting from its own negligence shall be limited.
5) If any of these terms shall become or be declared illegal, invalid or unenforceable for any reason whatsoever such term shall be divisible from these terms and shall be deemed to be deleted from them.

Troubleshooting

If the below does not solve your issue, please visit www.alcosense.co.uk/zero for more help.

I have got a positive reading but I haven't drunk any alcohol.

This can be caused by testing within 10 minutes of eating some strong foods, using dental products, chewing gum or smoking. On some occasions it can also be caused by the body releasing acetone/ketones released during the metabolism of acetoacetic acid. This can be increased with the use of some prescribed medications or certain medical conditions, most commonly diabetes. A healthy body can also create these substances occasionally, it is more likely if you are on a low carbohydrate diet such as the Atkins diet or similar. If you experience this problem please call us. Sometimes the first reading after a sensor clean can also do this.

I'm doing a breath test and it says FLO or ERR.

Please see section 10, understanding the results. If you continue to experience problems please call us.

"Calibrate Now" is shown on screen

Please see page 13 of the manual.

I've done two breath tests and got different results.

This is expected. The first test is the most accurate, if you perform a second test within a few minutes of the first test the breath alcohol levels in your lungs may not have stabilised after the first test, causing the second test to give you a different reading. If you have recently drunk alcohol, your blood alcohol level can also change quickly over the course of a few minutes. This is why you should only use the breathalyser 90 minutes after drinking or ideally, the morning after. If you test two different breathalysers back to back you will also expect slightly different readings for the same reason. This is why you cannot use one breathalyser to test the accuracy of another, it can only be done using Breath Alcohol Simulators. This is why UK law allows for up to 15% difference on sequential test results taken by the Police.

Now Group UK Limited
AlcoSense™ is a trademark of Now Group UK Ltd

UK calls: 0800 195 0088
International calls: +44 1628 778885
info@alcosense.com
www.alcosense.com

