

# AlcoLimit<sup>®</sup> DEFENDER<sup>®</sup>

## User Manual



**Certified Product**<sup>™</sup>  
Australian  
Standard  
AS 3547  
Lic. SMKHZ0644  
SAI GLOBAL

AlcoLimit Breathalysers Pty. Ltd.  
P.O. Box 1106,  
MANLY, NSW, 1655  
**Ph: 1300 667 661 or (02) 9939 3077**  
[www.alcolimit.com.au](http://www.alcolimit.com.au)



## IMPORTANT INFORMATION

**If you do not follow the instructions for use your test results may be inaccurate and your warranty may become void.**

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 breathalysers, 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. Additionally, waiting 20 minutes allows the alcohol to be absorbed from your stomach into your bloodstream, contributing to more accurate test results.

## PARTS OF YOUR BREATHALYSER



AlcoLimit's Flow Control Technology checks the flow rate of your breath. An adequate air sample must be received before it will provide you with a reading. This is just one of the safety measures built into the AlcoLimit range.



AlcoLimit's Intelli-sensor Recognition Technology checks the sensor condition every time you use your breathalyser. Stability of the sensor is analysed and an indication will be given if the sensor needs recalibration.

## SPECIFICATIONS

|                      |  |
|----------------------|--|
| Recommended Usage    | Personal   |
| Sensor Type          | Electrochemical Fuel Cell  |
| Accuracy             | Conforms to Australian Standard AS3547                               |
| Range %BAC           | 0.000 - 0.400  |
| Display              | 3 decimal places with Backlight                                      |
| Warm-up time         | < 35 seconds   |
| Breath Sampling Time | 6 seconds (approx.) a minimum flow must be received to get a reading |
| Housing              | Shock Resistant Plastic  |
| Weight               | 84 grams (with batteries)  |
| Power Source         | 2 x 1.5V 'AAA' batteries   |
| Dimensions           | 114mm x 47mm x 24mm  |
| Warranty             | 12 Month Limited Warranty  |
| Recalibration Period | 500 uses or 1 month, whichever comes first                           |
| Mouthpieces          | Disposable - 3 included  |

*Specifications are subject to change for the purpose of product improvement.*

For all after-sales service and enquiries please contact the manufacturer:

**AlcoLimit Breathalysers Pty. Ltd.**

P.O. Box 1106

Manly, N.S.W. 1655

Australia

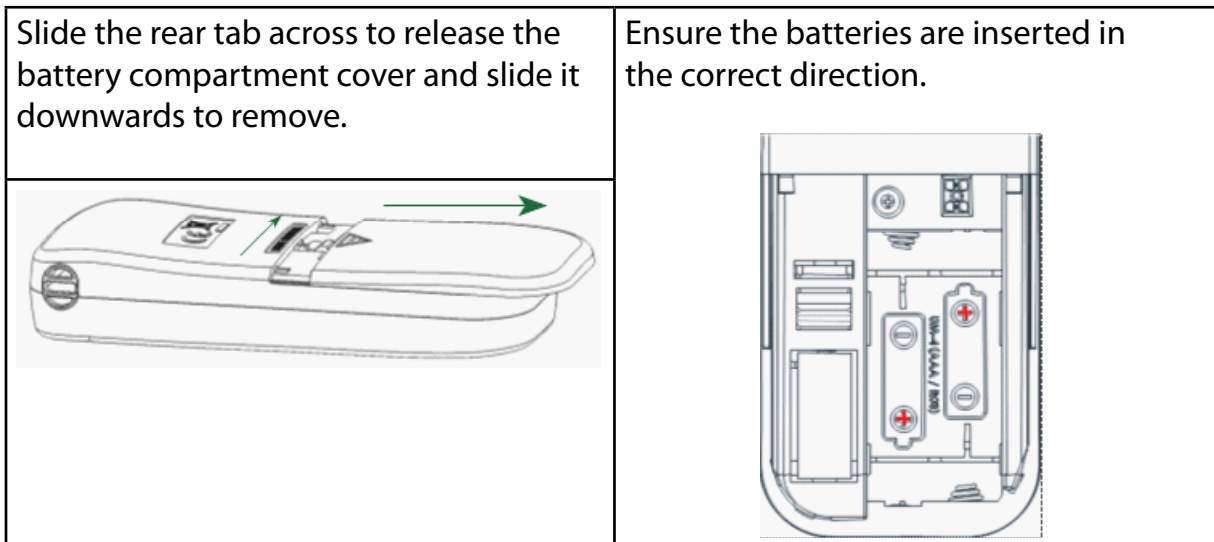
**Ph: 1300 667 661** or +612 9939 3077 (from overseas)

Website: [www.alcolimit.com.au](http://www.alcolimit.com.au)

Email: [sales@alcolimit.com.au](mailto:sales@alcolimit.com.au)

## USAGE

First, place 2xAAA batteries (supplied) into your ALCOLIMIT DEFENDER.



1. To turn your ALCOLIMIT DEFENDER on, depress the ON/OFF button for 2 seconds until the screen turns on.
2. The unit will commence a warm-up process.  
*Purge cycles and circuit tests are taking place during this time. This process generally takes 30 seconds but can last 2 minutes.*
3. The unit is ready when two beeps sound and the word **bLo** will appear on the display.  
*If you don't blow into the breathalyser within 20 seconds it will turn off.*
4. Attach the mouthpiece tube and blow one consistent deep breath into the sensor. There will be a beeping noise while you are blowing.  
A full lung of air is required. Once your ALCOLIMIT DEFENDER has received enough air-flow you will hear a double click signalling you to stop.  
  
*If inadequate airflow is received, the word **FLo** will appear on the screen. Do not block the air hole on the opposite side of the mouthpiece while testing as this will affect the airflow.*
5. A circling line will appear on the display while the breathalyser is analysing your breath sample. Your %BAC result will then be displayed on the screen.

The display shows only 3 digits to the right of the decimal place.

**For example '050' indicates '0.050%BAC**

## RETESTING

Press the ON/OFF button as soon as the Red or Green LED light turns off. The breathalyser will then start the countdown for the next test.

To retest, if your AlcoLimit DEFENDER has turned itself off, depress the on/off button, and wait for it to warm up again.

When high alcohol readings are received, retesting should be spaced 3 minutes apart to allow all alcohol vapour to be eliminated from the sensor.

## DISPLAY & INTERPRETATION

Your %BAC will be displayed on the screen for 20 seconds after which your ALCOLIMIT DEFENDER will turn itself off.

| Breath Alcohol Concentration (BAC) | Digital Display and Audio Signals   |
|------------------------------------|---|
| 0.000-0.049%                       | %BAC displayed on screen with audible beep and Green LED light                |
| 0.050 - 0.400%                     | %BAC displayed on screen with one long audible beep and Red 'WARN' LED light  |
| 0.400 upwards                      | 'HOT' will appear on the screen indicating the maximum level has been reached |

*This device is a 0.05% BAC device (0.05%BAC is equal to 0.05grams of alcohol per 100ml of blood).*






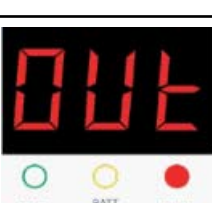
**Australian & New Zealand Customers:** The drink driving cut-off for people on a full licence is 50mg per 100ml of blood. This equates to 0.05%BAC.

This is current as at April 2015. The Australian & NZ Govts. may change this level in the future so please check before driving.

PLEASE NOTE: Alcohol vapour on your breath will cause a higher reading. We recommend having a glass of water prior to testing and waiting at least 20 minutes after your last drink for accurate results. Not waiting the required 20 minutes will saturate the sensor unnecessarily and may cause sensor damage. This is not covered under your warranty.

Please always wait 20 minutes after consuming any alcohol to avoid this problem.

## TROUBLESHOOTING GUIDE

| Display  | Explanation  |
|--|--|
|  <p>The display shows '0.50'. Below the display are three indicator lights: a green circle labeled 'READY', a yellow circle labeled 'BATT LOW', and a red circle labeled 'WARN'.</p>  | <p>The result is higher than 0.050%BAC.</p> <p>An alarm sounds and WARN light is on.</p>   |
|  <p>The display shows 'Hot'. Below the display are three indicator lights: a green circle labeled 'READY', a yellow circle labeled 'BATT LOW', and a red circle labeled 'WARN'.</p>   | <p>The result is higher than 0.400%BAC.</p> <p>An alarm sounds and WARN light is on.</p>   |
|  <p>The display shows 'bat'. Below the display are three indicator lights: a green circle labeled 'READY', a yellow circle labeled 'BATT LOW', and a red circle labeled 'WARN'.</p>  | <p>There is not enough voltage in the batteries.</p> <p>The yellow BATT LOW light is on.</p> <p>Replace with 2 x AAA alkaline batteries.</p>   |
|  <p>The display shows 'FL0'. Below the display are three indicator lights: a green circle labeled 'READY', a yellow circle labeled 'BATT LOW', and a red circle labeled 'WARN'.</p> | <p>The sensor has not detected a long enough or strong enough breath.</p> <p>Press the ON/OFF switch again and retest. Ensure a strong consistent breath is provided until the click sounds.</p> |
|  <p>The display shows 'CAL'. Below the display are three indicator lights: a green circle labeled 'READY', a yellow circle labeled 'BATT LOW', and a red circle labeled 'WARN'.</p> | <p>Calibration is due.</p> <p>The unit may no longer provide accurate readings.</p> <p>Red WARN light is on.</p> <p>See 'Recalibration' page for details.</p>                                    |
|  <p>The display shows 'OUT'. Below the display are three indicator lights: a green circle labeled 'READY', a yellow circle labeled 'BATT LOW', and a red circle labeled 'WARN'.</p> | <p>The ambient temperature is outside the recommended Working Temperature range of 5-40°C.</p> <p>The red WARN light is on.</p>  |

For any other issues please call our customer centre on 1300 667 661 or +612 9939 3077 (NZ customers).

## **WARNINGS (Please read carefully)**

- Closed rooms with poor ventilation, pollution, smoke or air conditioning may delay the time for resetting between tests.
- 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.
- Not waiting at least 20 minutes after your last alcoholic drink will cause inaccurate readings, and if you continue to misuse ALCOLIMIT this way you will damage the sensor beyond repair (not covered under warranty). Have a glass of water or other non-alcoholic beverage to minimise alcohol vapour in your mouth as the vapour can cause a higher reading.
- Retest 2-3 times to obtain a reliable test result. We suggest you then wait a further 10 - 20 minutes and retest to check that your level has stabilised and not increased.
- Blood alcohol concentration can continue to rise for up to 2 hours after the cessation of drinking. If the reading is close to the limit it is advised to wait a further 10-20 minutes and retest to determine whether your %BAC has stabilised.
- It can take 10 hours or more to return to a zero reading after a high blood alcohol level has been reached. A further test should be carried out later in the day or the following morning.
- If you are taking ALCOLIMIT overseas or using it at a different altitude please be aware that the calibration may be affected.
- Do not blow cigarette smoke or liquid into the tester.
- Alcohol affects each individual differently depending upon many factors; type of alcohol, muscle mass, weight, full or empty stomach, immune system, gender, regularity of drinking.
- Those with diabetes may find they can drink large volumes of alcohol yet still read 0.00%BAC. This does not mean your ability to drive is not impaired.
- Do not use ALCOLIMIT as a tool to drink and drive. There is no safe level of alcohol consumption before driving or operating machinery.
- The only true indication of your Blood Alcohol Concentration (BAC) is a blood test. The results obtained from a personal breath alcohol tester cannot be used in a court of law.

## **STORAGE CONDITIONS**

Keep free from dust, dirt, and small particles as they may clog the sensor.

Keep in a cool dry place.

Keep out of extreme temperatures.

Keep out of reach of children.

Keep away from electrical interference.

Do not drop, knock or shake.



## RECALIBRATION

The calibration period of ALCOLIMIT DEFENDER is 1 month or 500 uses, whichever comes first. A specially calibrated alcohol simulator is used to recalibrate the ALCOLIMIT DEFENDER and the electronics need to be reset during recalibration, do not attempt to service it yourself. If you receive erratic or high readings your breathalyser may need recalibration.

If you have any doubt about the readings you are receiving from your ALCOLIMIT DEFENDER then your breathalyser may need recalibration.

Periodic recalibration is required because over time breath alcohol testing devices may drift from their calibration setting even when not used. Your ALCOLIMIT DEFENDER is a sensitive instrument. Unlike other electronic devices, your breathalyser shouldn't be ignored for long periods of time. The sensor inside it is delicate and can dry out if left unused for too long. In order to keep it in good working condition, we recommend that you **blow into it at least once a month**, even if you don't plan on using it. Breathing into the unit regularly keeps the sensor moist and in good working order. Sensors that dry out can sometimes require more frequent calibration.

### **Professional Calibration by our Technicians:**

Recalibration costs \$45 AUD and includes return postage to you within Australia and NZ via Australia Post.

### **Post your ALCOLIMIT unit to :**

AlcoLimit Breathalysers Pty. Ltd.  
Recalibration Dept.  
P.O. Box 1106  
Manly, N.S.W. 1655

When posting your ALCOLIMIT DEFENDER to us you are advised to send it Registered Mail for tracking purposes.

You must include the following:

- your name
- return postal address
- daytime phone no.
- payment
- instruction manual to update service record

If you require a 'Calibration Certificate' please request one at the time of recalibration. These cost \$22 each (incl. GST)

**You may pay with credit card online via PAYPAL on our 'SERVICING' page at:  
[www.alcolimit.com.au/servicing](http://www.alcolimit.com.au/servicing)**

Or you may call us on **1300 667 661** to pay with credit card.

Payment can be made via money order made out to:

**'AlcoLimit Breathalysers Pty. Ltd.'**

Your unit will usually be returned to you within a week. If you have any questions regarding recalibration, please call us on 1300 667 661 or +612 9939 3077

For NZ Customers we recommend payment via Credit Card due to exchange rate changes.

## **WARRANTY**

Manufacturer warrants for one calendar year the product to be free from defects in workmanship or materials (excluding calibration) in normal service from the date of purchase. Manufacturer's obligation under this warranty is limited to replacing or repairing the unit if returned along with proof of purchase. This warranty is void if unit has been tampered with, misused, dropped, maliciously damaged or used for any purpose other than that intended.

The cost to return the unit to the manufacturer's service centre is at the expense of the consumer. The consumer is welcome to drop the unit off at our service centre in person. The consumer must contact our customer service centre prior to returning the unit to us to enable our technicians to diagnose the fault over the phone.

Upon returning the unit to our service centre under warranty, should the unit be found not to be faulty, the consumer is liable for the freight cost to return the item to them. Should the unit be found to be faulty the freight cost to return the item to the consumer will be borne by the manufacturer. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

## DISCLAIMER

AlcoLimit DEFENDER is recommended as a screening device only. The reading you receive is not legally binding in a court of law, ALCOLIMIT DEFENDER is to be used only as a guide. The only true indication of your %BAC is a blood test.

Probationary drivers and machinery operators should check with their state authority or employer as to whether a 0.02%BAC or zero tolerance applies to them. We do not recommend driving or operating machinery with any amount of alcohol in your system. Heavy fines and penalties may apply and the presence of alcohol in your system may void your insurance.

The manufacturer gives no warranty, express or implied, as to the ability of ALCOLIMIT DEFENDER to determine or detect intoxication or to accurately indicate your blood alcohol level. The manufacturer assumes no responsibility in circumstances where a person who has used the device and received an indication of the presence of alcohol in his/her exhaled breath is later found to be under the influence of or their judgment has been impaired by alcohol; and will in no circumstances be liable for any loss or damage in contract or tort (including negligence) or otherwise suffered by any person arising directly or indirectly from the use of ALCOLIMIT DEFENDER.

The manufacturer, importer or distributor takes no responsibility whatsoever for the use of this product for any reason. This product must not be used as a tool for determining whether a person is able to operate a vehicle or machinery. The intake of any alcohol will impair reflexes and judgment to operate motor vehicles and machinery.

For further information on ALCOLIMIT DEFENDER, and to view other models available, see our website: **[www.alcolimit.com.au](http://www.alcolimit.com.au)** or call our information line on **1300 667 661**.

