

# INSTRUCTION MANUAL

FUEL CELL SENSOR TECHNOLOGY



The **AlcoLimit RBT WALLMOUNT** is a wall mountable breathalyser designed for heavy duty use in pubs, clubs and restaurants. It utilises fuel cell technology for precise digital readings and quick measurement repetition. The RBT is the first breathalyser on the market to allow self servicing on the spot – this eliminates service contracts and greatly reduces maintenance costs.

Ideal for use in restaurants, bars and clubs to aid in the responsible service of alcohol. Very simple and easy to use, the user is guided by on-screen instructions and %BAC results appear within seconds. The retest rate is rapid, allowing successive tests in a short period of time.



\*Breath Inlet: This is where the patron places the straw to blow into the machine. The sampling time is 6 seconds.

\*Coin Slot/Free Use Button: Located on the right side of the machine. Use is activated by either inserting the correct coin denomination or by pressing a red button (depending upon option selected at time of purchase)

\*Straw outlet: This is where the straws are dispensed from the machine. Ordinary drinking straws are recommended. Available in both standard and individually wrapped types.

\*LCD display: The instructions are displayed on the LCD.

# INSTALLATION

Installation should be performed by a qualified tradesperson.

We recommend 2 people perform this installation for ease of aligning the unit.

To install the RBT Wallmount Breathalyser on a wall you will need:

- 1 x Drill (not included)
- 1 x Philips-head screwdriver (not included)
- 2 x Screws & Wall plugs to suit the wall you will attach the unit to (not included)
- 1 x RBT Wallmount Breathalyser (included)
- 1 x Power pack (included)
  - 1. Have person 1 hold the unit while the other person marks the holes in the wall with a pencil. (Simply fold the back panel out and put it against the wall, then stencil the holes on the wall with a pencil)
  - 2. Put the breathalyser down, drill holes and insert wall plugs or your preferred fitting
  - 3. Fold out the back panel and insert the screws (or chosen fitting) through the holes in the back panel into the wall. Ensure it is secure.
  - 4. The breathalyser is now attached and you should be able to pull the front panel forward from the wall and access the inside for servicing.
  - 5. To secure the breathalyser from tampering always lock the casing at the top with the key provided
  - 6. Plug in the power pack underneath and plug it into a power socket. You may feed it through a wall or use conduit to secure it to the wall and run it to the power point.

Please phone 1300 667 661 if you have any guestions regarding installation.

# **ON-SCREEN GUIDANCE**

Below are the steps followed by the user of the RBT Wallmount and the onscreen guidance.

The following is displayed until either coins are inserted or the red free use button is pressed:

KNOW YOUR LIMIT. CHECK YOUR ALCOHOL LEVEL.
INSERT COIN(S) AND TAKE A STRAW.

The device will then prepare for testing:

WARMING UP, PLEASE WAIT....

When it is ready for testing the following will appear:

BLOW STEADILY UNTIL TONE ENDS
"SAMPLING"

The user will then need to blow into the unit for 6 seconds until the following appears:

SAMPLING IS COMPLETED.
"ANALYZING"

If you stop blowing or you do not breathe strongly enough, "**Flow Error**" will be displayed on LCD. The device does not sense a proper breath sample, please wait and try again and the machine will automatically prepare for a retest.

This process will continue until you finally obtain a correct result.

If the %BAC result reaches the maximum limit on the RBT (over 0.250%BAC) the software will prevent another test for approximately 4 minutes. This is a safety precaution to prevent patrons of pubs and clubs using the device for drinking games.

# RESULTS DISPLAYED & INTERPRETATION

When the measurement is complete, the blood alcohol concentration (eg. 0.052%BAC) will appear on the LCD display.

A visual guide on the front panel will indicate whether or not a patron can drive. We do not recommend drinking and driving with any amount of alcohol in a person's system.

\*The message for each level is;

PASS = 0.000-0.019%BAC

Very little or no alcohol has been detected. Don't drink and drive!

# CAUTION = 0.020-0.049%BAC

A moderate amount of alcohol has been detected. Don't drink and drive!

# FAIL = 0.050%BAC upwards

A high level of alcohol has been detected. Don't drink and drive!

### **PRECAUTIONS**

- 1. During testing, any alcohol traces left in a patron's mouth will increase the value of the blood alcohol concentration level. Remove these traces before testing. Wait 20 minutes after drinking before testing.
- 2. When a patron exhales through the straw, some unintentional salivation may affect the built-in equipment. However, please be aware that placing any other liquids or materials into the straw may cause the sensor to malfunction.
- 3. Cigarette smoking may also increase the blood alcohol concentration value. Allow ten minutes after smoking before testing.

## SEE WARNINGS BELOW FOR FURTHER PRECAUTIONS

# **SPECIFICATIONS**

Indication of B.A.C	0.000 to 0.250 %BAC
Warm up time	within 30 seconds
Response time	within 6 seconds at 0.10 %BAC
Sensor	Fuel Cell Sensor
Accuracy	±0.005 %BAC at 0.100 %BAC
Ambient conditions	Operation: 0 to 40°C
Ambient conditions	Storage : 0 to 50°C
Display	LCD Module
Result reading	Good: 0.000-0.019%BAC
	Warning: 0.020~0.049%BAC
	Danger: 0.050%BAC & upwards
	These levels may be customised on request
	AC 110~220, 50/60 HZ, 0.5A input
Power supply	DC 12V, 1.5A output
Mouthpiece	Cylindrical straw
Coin Mechanism	Can be set to suit any denomination
Weight	5.85Kg (including DC power supply)

### **MAINTENANCE GUIDE**

The software product is easy to maintain, and its operating environment can be managed onsite without the need for specialist service technicians. In order to service the RBT at your premises you will need to complete an online training course to become certified to service the device in accordance with Australian Standard AS/NZS3547. Details are available at <a href="https://www.alcolimit.com.au/elearning">www.alcolimit.com.au/elearning</a>.

# REPLACING THE SENSOR MODULE

The AlcoLimit RBT is uniquely designed to allow customers to replace the fuel cell sensor themselves.

To ensure accuracy of the RBT unit and maintain its calibration the following maintenance needs to be performed every 25-30 days (600-720 hours).

- After 25 days (600 hours) "Calibration required shortly" will be displayed on the LCD screen.
- You have **5 days** to perform the maintenance procedure.
- At 30 days the RBT breathalyser will activate its lockout function and will not work until this
  procedure is completed.

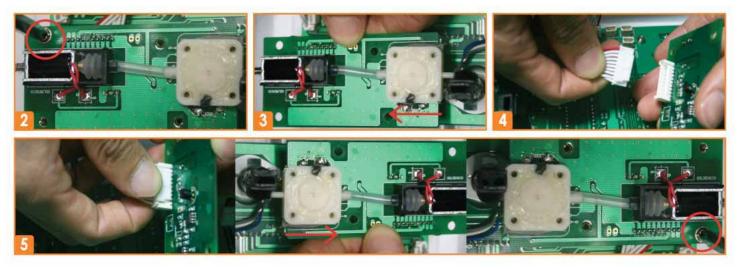
In order to service the RBT at your premises you will need to complete an online training course to become certified to service the device in accordance with Australian Standard AS/NZS3547. Details are available at <a href="https://www.alcolimit.com.au/elearning">www.alcolimit.com.au/elearning</a>.

Before starting this procedure please ensure you have a new pre-calibrated sensor module on hand to replace the used one with.

We also recommend you keep a log of the following information (log template attached):

- Date of sensor change
- Number of uses
- Number of hours
- Serial number of sensor used
- Name/Initials of staff member
- Certification number of staff member (on the staff members 'Statement of Attainment')

Ensure your hands are clean and free from oil or grease prior to touching the circuit board. You will need 1 phillips head screwdriver.



- 1. Turn the power off. (Very Important!!)
- 2. Unlock the top of AlcoLimit RBT and fold the front forward
- 3. Locate the sensor module and remove the 4 screws as indicated above
- 4. Pull out the sensor board above in the direction of the arrow.
- 5. Unplug the connector (press the clip) and insert the new sensor board
- 6. Plug in connector, push the sensor board in its correct place and replace the 4 screws tightly.
- 7. Turn on the power and the AlcoLimit RBT will perform an accuracy check.
- 8. The replacement is complete.

If the front display remains blank (no power) the sensor is not connected correctly. Disconnect and reconnect the white cable again.

With each new sensor purchased from AlcoLimit Breathalysers a "Calibration Certificate" can be ordered for \$22. Be sure to file this in the correct place for record keeping purposes.

# RECALIBRATING THE SENSOR MODULE

Return the used sensor to AlcoLimit Breathalysers for recalibration. Each sensor can be recycled multiple times before a new one needs to be purchased (subject to volume of use).

For recalibration, return your sensor to:

AlcoLimit Breathalysers Pty. Ltd. Recalibrations Dept. P.O. Box 1106, Manly, NSW, 1655 The cost of recalibration is \$75 AUD. If you require a 'Calibration Certificate', please add \$22 (total \$97). This includes return freight to you (overnight to metro areas).

Please be sure to include an 'RBT RECALIBRATION REQUEST FORM'. Attached to the back of these instructions or email <a href="mailto:sales@alcolimit.com.au">sales@alcolimit.com.au</a> for a copy. A new form will be returned to you with each recalibration.

Your sensor will be tested, recalibrated and returned to you within 2-3 working days. We recommend you always have a spare sensor on hand to minimise machine downtime.

# **ERROR MESSAGES**

#### 1. Flow error

If you stop blowing or you do not breathe strongly enough, "Flow Error" will be displayed on the LCD. Please wait and try again and the machine will return to the waiting mode.

#### 2. Coin error

- A. If an inadequate coin is inserted and caught in the slot, you will see this message.

  Push the button below the coin slot or check the coin slot from inside.
- B. If the coin container inside the machine is full, you will see this message. Please empty the coin container

#### 3. Sensor error

- A. Check if the alcohol sensor is in the right place on the board.
- B. If you still have the error message, replace the sensor.

#### TROUBLESHOOTING GUIDE

# 1. The machine is plugged in, but there is no power.

a. Make sure that the line attached to the power adapter is connected correctly to the power socket on the bottom of the machine. Make sure the power point is turned on.

# 2. A patron inserted a coin, but the machine does not work.

- a. Make sure they have inserted the correct amount.
- b. Check the coin mechanism does not have any foreign objects stuck in it.

#### 3. There is no audible alert or sound.

Call AlcoLimit Breathalsyers during office hours (9-5pm M-F) and they will guide you through a guick sound test

# 4. You blow, but the machine does not respond.

a. Check if the display window shows an error eg: "Sensor error". If so, refer to error

messages above.

# 5. After testing, the machine does not go back to the waiting mode.

The machine displays the result %BAC for 10 seconds. In order to go back to the testing mode, the alcohol blown into the machine must be eliminated completely.

The amount of alcohol increases the time required for this elimination to be competed, but it normally does not exceed 4 minutes. If it takes more than four minutes, the sensor may be malfunctioning. Replace the sensor and if the error continues contact AlcoLimit Breathalysers on 1300 667 661.

Please note that the software has an inbuilt function to prevent people using the device for 'drinking games'. If a level of 0.250%BAC is blown into the machine it will not allow any additional tests for 4 minutes.

### FOR FURTHER ASSISTANCE PLEASE CALL 1300 667 661.

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

- Closed rooms with poor ventilation, pollution, smoke or air conditioning may delay the time for resetting between tests.
- Not waiting at least 20 minutes after your last alcoholic drink will cause inaccurate readings. Have a glass of water or other non-alcoholic beverage to minimise alcohol vapour & residue in your mouth as this 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 RBT 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 RBT as a tool to drink and drive. There is no safe level of alcohol consumption before driving or operating machinery.

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.

WARRANTY

The manufacturer warrants the product to be free from defects in workmanship or material (excluding

calibration) under normal use for twelve (12) months from the date of purchase.

The manufacturer's obligation under this warranty is limited to replacing, adjusting or repairing the unit

if returned along with proof of purchase. This warranty is void if the unit has been tampered with or

maliciously damaged. All freight charges to send the unit to the manufacturer are the responsibility of

the customer.

**MANUFACTURER'S DETAILS** 

For recalibration and technical support, please contact us at:

**ALCOLIMIT BREATHALYSERS PTY. LTD.** 

P.O. BOX 1106,

MANLY, NSW, 1655

Ph: (02) 9939 3077 or 1300 667 661

Fax: (02) 9938 3367

Web: www.alcolimit.com.au

Email: sales@alcolimit.com.au

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