

protech

# Fuel Cell Breathalyser with Advanced Flow Detection



## User Manual

QM7320

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## GENERAL INFORMATION & SAFETY INSTRUCTIONS

- Use ALKALINE batteries only
- DO NOT DRINK AND DRIVE!

**WARNING: The manufacturer is not responsible for any potential injury from misuse.**

## BOX CONTENTS

- 1x Breathalyser
- 1x Mouthpiece Set
- 1x AA Battery

## OVERVIEW



## BEFORE FIRST USE

Prior to using your product, please read all the safety and operating instructions thoroughly. Please ensure you follow the steps below before using the product. We recommend you keep the original packaging for storing the product when not in use. Please pay close attention to the section entitled Important Safety and General Instructions. Find a safe and convenient place to keep this instruction manual for future reference.

Unpack the product but keep all packaging materials until you have made sure your new product is undamaged and in good working order.

## GETTING STARTED

### Battery

The tester requires One (1) AA Alkaline battery to operate. Press down with little pressure and slide away the battery cover from back of the unit. Install the battery and close the battery cover. (\*\* It is recommended to use NEW alkaline batteries)

### 15 Minute Observation Period

It is suggested to wait 15 minutes from smoking and drinking, and rinse your mouth with water before using the unit. If you do not wait enough time and perform a test just after drinking, the reading will fluctuate very high reading and then drop gradually. It is due to the strong alcohol residue inside your mouth that enhanced the measured values. In addition, if the alcohol residue inside mouth (without enough wait time) is of too high concentration, it might have potential to damage the sensor.



**WARNING: Failure to wait 15 mins could give inaccurate test results and damage the sensor!**

### Optimal Accuracy at Room Temperature

It is recommended to conduct breath tests at room temperature for optimal accuracy. It is also recommended to store the unit in room temperature environment (when not using the unit for long time) to maintain the healthy state of the sensor. Do not use or store the unit under extreme temperature setting. (eg: store inside car under extreme summer or winter temperature)

## TAKING A BREATH TEST

### Insert a mouthpiece

Insert mouthpiece firmly into the slot. Additional mouthpieces could be purchased from your distributor.

Insert mouthpiece  
into slot →



**NOTE: Tests conducted without using mouthpiece might contribute inaccurate results. It is recommended to use mouthpiece in every breath test.**

### Breath Testing Modes (Automatic/Manual)

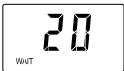
The breathalyser is capable of conducting Automatic and Manual tests.

**Automatic test** - an easiest way to collect a deep lung sample.

The flow system monitors the subject's breath and automatically takes sample near the end of the breath flow.

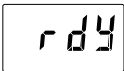
**Manual test** - normally used only when the subject is unable to conduct an automatic test.

### Conducting a breath test

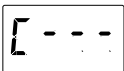


Press Power button for 2 sec to power on the unit. The unit initiates sensor warm-up process. Timer starts to count down.

### Taking an Automatic Test



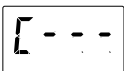
When you see "rdy" (Ready) with a beep sound, take a deep breath and blow into the mouthpiece moderately, and at a constant speed and pressure.



It displays "[---]" and alert a continuous beep, indicates a proper breath flow is detected. At the end of breath flow (~5 sec), the tester would automatically take the breath sample.

"click, click"

Blow until you hear the 2 'click' sound (click, click) is complete to signal sampling process is successful.

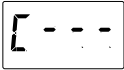


Tester starts analyzing the collected breath sample and shows "[---]" (Calculating). Wait for a short while and the BAC result would be displayed.

## Taking an Manual Test



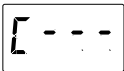
When you see “rdy” (Ready) with a beep sound, apart from let the tester to start collect breath sample automatically, you could also **manually start the breath sample collection process by pressing Left button (Manual test mode)**. The manual test mode starts and it displays “L. ---” and alert a continuous beep sound.



Take a deep breath and blow into the mouthpiece moderately, and at a constant speed and pressure.

“click, click”

Blow until you hear the 2 ‘click’ sound (click, click) is complete to signal sampling process is successful.



Tester starts analyzing the collected breath sample and shows “[. ---” (Calculating). Wait for a short while and the BAC result would be displayed.

## Read the results

BAC result would be displayed in either format of (%o, %, mg/l) according to your country specific BAC display format. In case you would like to change the display format, simply press LEFT button to change between display format.

\*At some occasion, the unit may auto long beep before you blow into the unit and display result as 0.00.

This happens because there is a possibility to measure a very low presence of other substance on the sensor after long storage without usage. In this case, simply restart another test.

\*At some occasion, the unit may display result as “Out”. This happens because the test has been conducted in either too cold or too hot temperature environment. Please bring the tester back to a normal room temperature environment. You might need to wait few minutes for the sensor inside the tester to stable down to room temperature condition before conduct a re-test.

\*The BAC result will show on display for 30 seconds. The unit will turn off automatically afterwards.

You can also turn off the unit at any time by pressing and holding down ‘POWER’ button for 3 seconds.

## Suggested wait time between tests

After you have completed the first test and would like to take a second test and so on, it is recommended to WAIT AT LEAST FEW MINUTES (PREFERABLY 5-10 MINS) between tests to prevent the sensor being saturated and to keep the healthy state of the sensor.

## TEST RECORD MEMORY MODE

### Recall cumulative test count

During countdown, press 'POWER' button to display the cumulative test count - the number of tests it has performed.

In case you would like to reset this counter, you could long press LEFT button until you see the counter is reset to zero.

**NOTE: It is recommended to recalibrate the unit once every year or after 300 tests, whichever comes first.**

### Recall previous test results (up to 16 records)

And then press 'POWER' button again to display the latest test record (indicated by the serial number 'I' on screen, followed by the corresponding result) Press LEFT button to display the next test records sequentially upto the 16th test record history.

Press RIGHT button to see the records in backward order.

To exit the test record memory mode, press 'POWER' button again back to countdown.

## SYSTEM MESSAGE

| Display | Cause and Course of Action   |
|---------|--|
| H       | This message means the unit detected an out of range high alcohol concentration (above 4.00‰ BAC / 0.400%BAC / 2.00 mg/L).   |
| FLo     | This message (Flow) means insufficient or uneven blowing is detected. Kindly perform another test.   |
| Snr     | This message means Sensor Not Ready. It happens when high concentration of alcohol residue or pollutant is found on sensor from last test. Kindly switch off unit and wait few minutes before conduct next test.   |
| rPt     | This message (Repeat) means the unit could not complete a test. Kindly repeat another test.  |
| Out     | This message means the test has been conducted in either too cold or too hot temperature environment. Please bring the unit back to a normal room temperature environment. Suggest to wait few minutes for the sensor inside the unit to stable down to room temperature condition before conduct a re-test. |
| Lo      | This message means Low Battery. Replace new AA alkaline batteries.   |

## PRECAUTIONS

- Allow at least 15-20 mins after drinking, smoking before testing. Rinse mouth with water before testing.
- For more accurate results, it is recommended to have the unit recalibrated for every 12 months or 300 tests.
- The unit is designed to be used in a temperature range of 10-40C (Celsius), with optimal accuracy for tests conducted at room temperature (i.e: around 20-26C Celsius).
- It is normal to see test result below 0.10‰ OR 0.010% BAC OR 0.050mg/L when you did not drink any alcohol before. This is because it is possible to measure other substance in your breath other than alcohol in some occasions.
- Do not use the unit as a tool to determine you should operate vehicle. The BAC result displayed is for reference only. Manufacturer and dealer disclaims any legal responsibility for the measured test value.



## MAINTENANCE

To keep the unit in a healthy condition, it is suggested to use the unit at least once a month.

The breathalyser is calibrated during manufacture using advanced alcohol simulation equipment. Known alcohol concentrations are passed through the sensor to set baseline values for testing. During testing, the unit compares users' breath samples to these baseline values.

The accuracy of breath alcohol testers can fluctuate after six to twelve months of normal use, depending on the number of tests performed and operating conditions.

If this product is providing inconsistent test results, is not providing any test results, or provides unusually high or low test results, the product should be recalibrated.

## SPECIFICATIONS

|                              |  |
|------------------------------|--|
| <b>BAC Detection Range</b>   | 0.00 to 4.00 ‰BAC (i.e: 0.000 to 0.400‰BAC or 0.00 to 2.00 mg/l) |
| <b>Accuracy</b>              | +/- 0.05 ‰BAC or +/- 0.005 ‰BAC at cal. point at room temp.      |
| <b>Warmup</b>                | Within 5 seconds (* at low concentration test)                   |
| <b>Response time</b>         | Within 10-30 seconds   |
| <b>Sensor</b>                | Electrochemical Fuel Cell sensor                                 |
| <b>Operating temperature</b> | 10 - 40°C (50 - 104°F)   |
| <b>Display panel</b>         | Digital LCD display with backlight                               |
| <b>Digital display</b>       | 3 digits (‰BAC) or 4 digits (%BAC)                               |
| <b>Power</b>                 | One 1.5V AA Alkaline Battery                                     |
| <b>Battery life</b>          | Approx. 500-1000 tests with new battery                          |
| <b>Dimensions</b>            | 114 x 51 x 18 mm   |
| <b>Recalibration</b>         | Recommended every 6-12 months or 300 tests                       |



## WARRANTY

Our product is guaranteed to be free from quality and manufacturing defects for a period of 12 Months.

If your product becomes defective during this period, Electus Distribution will repair, replace, or refund where a product is faulty; or not fit for intended purpose.

This warranty will not cover modified product; misuse or abuse of the product contrary to user instructions or packaging label; change of mind and normal wear and tear.

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 failure does not amount to a major failure.

To claim warranty, please contact the place of purchase. You will need to show receipt or other proof of purchase. Additional information may be required to process your claim. Should you not be able to provide proof of purchase with a receipt or bank statement, identification showing name, address and signature may be required to process your claim.

Any expenses relating to the return of your product to the store will normally have to be paid by you.

The benefits to the customer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods or services to which this warranty relates.

This warranty is provided by:

Electus Distribution  
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