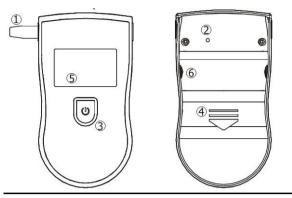
# **Digital Alcohol Tester**

# Structure guide picture



Mouthpiece (replaceable)
 Battery compartment

2. Buzzer hole 3. Power button

5. LCD screen 6. Imbedded Cover for Mouthpiece

# Reference

BAC: <u>Blood Alcohol Concentration</u>
BrAC: <u>Breath Alcohol Concentration</u>
0.030% BAC ------ refers to there is 0.03g alcohol in each 100ml of blood
0.300‰ BAC ------ refers to there is 0.30g alcohol in each 1000ml of blood

## Features

- 1. ‰-bit digital alcohol tester
- 2. Three kinds of unit conversion (%BAC / %BAC / mg/L)
- 3. Built-in Mouthpiece, Mouthpiece can be replaced
- 4. Both sides of the products can be installed with Mouthpieces.
- 5. Blue backlit digital LCD screen
- 6. Light weight stylish design, patented product
- 7. Loud alarm sounds

# Installating battery

1. Open the back cover.

2. Place 3 pieces of (AAA) alkaline batteries by following the positive and negative pole instructions.

3. Install the back cover.

# How to use the alcohol tester

## <u>Warm up</u>

1. Press the power button for a second, after a sound of "tick", the tester's LCD screen will start up.

2. "Warm up" will appear on the screen, then under the Warm up mode, will start to countdown from 15 to 00.

# Note

There are often a number of gases or debris attached to the sensor surface of the tester. Therefore, when you removed the tester from its packaging for the first time, or you have used it for a long time, you need some time to clean and warm up the sensors. If possible, users need to push the power button for as many as possible times.

## Testing

1. After a successful "Warm up", a "Blow" logo will appear on the screen. Under the test mode, it will start

to countdown from 10 to 00.

2. Hold the Mouthpiece in your mouth, and blow with the normal intensity for 2-3 seconds.

3. It was recommended that users shall start to blow when the countdown is beginning from 09 seconds , so that there is sufficient time for the tester to absorb your breath.

## **Readings**

1. When the display is more than 0.050% BAC or 0.500‰ BAC or 0.250mg/L (BrAC), the tester will send an alarm.

2. Unit conversion: under the test result mode, hold down the "Power" button to change the units (%BAC / %BAC / mg/L), the final displayed units will be the units for the next test.

## Auto power off

Test results will display about 20 seconds on the LCD, and then the tester will automatically switch off.

#### **Replace mouthpiece**

Take a mouthpiece out of the nozzle box in the back, and mount it on the left or the right side of the tester according to your own preferences.

#### **Replace battery**

LCD screen flashes for low power, please replace the alkaline batteries.

#### Specifications

Sensor: high-precision semiconductor alcohol sensor Detection range: 0.000~0.199% BAC; 0.000~1.990‰ BAC; 0.000~0.995mg/L (BrAC) Alarm point: 0.050% BAC; 0.500‰ BAC; 0.250mg/L (BrAC) Accuracy:  $\pm 0.010\%$  BAC;  $\pm 0.100\%$  BAC;  $\pm 0.050$ mg/L Response Time: <5s warm-up time: <20sOperating voltage: 3 No. 7 alkaline battery Operating current:  $\le 120$ mA Operating environment: -10 °C~50 °C Screen: blue backlight 3-digit LCD screen

#### Precaution

1. Take a test at least 20 minutes after drinking, as it will take about 20 minutes for alcohol to be absorbed from the digestive system into the bloodstream. Take the test immediately after drinking, the results will only reflect the alcohol concentration in your mouth, rather than alcohol concentration contained in the blood.

2. To enable an accurate test results, please take the test 20 minutes after drinking, preferably, the testing time shall be more than 3 minutes after the last test.

3. Do not clean the tester with direct use of chemicals or fluid containing dissolved corrosive matters, to avoid the liquid being blown into the inflatable tube.

4. if the rudimental air in tester is very thick, the next test result will not be displayed, please shaking slightly for several times so that the inside air can be volatilized out.

5. If under an environment with high concentration of gas, the tester will not work properly.

6. If the test is under low voltage, there will be some deviation between the test values and real values.

7. Is strictly prohibited that the tester was placed and used under a closed environment with paint, pesticides, alcohol and other corrosive gases or polluted air.

8. Unauthorized repairs and damages to internal parts will lead to product failure.

9. After being used for a long time, there may be dirt on the tester, clean it with a cloth.

#### Postscript

Different countries have different drinking driving and drunken driving standards, generally, if the

driver's blood alcohol concentration is greater than or equal to 20mg/100ml, but less than 50mg/100ml, it shall be drinking driving, and if the alcohol content is greater than or equal to 50mg/100ml, it shall be drunk driving. (In some countries, greater than or equal to 80mg/100ml is drunk driving).

Under normal circumstances, if you take the alcohol tests immediately after drinking wine, the indicating values may be very high. However, if you take the test 20 to 30 minutes after drinking, the value may decline, but this value is more accurate, it is because that the alcohol has passed the digestion and absorption system into the bloodstream by that time. While the critical value of the traffic police officer's punishment for drink driving is 20mg (or 0.02g), however, this does not mean that driving under less than 20mg (or 0.02g) is safe. Whether if you have a big or small alcohol capacity, as long as you drink alcohols, no matter how much it is, you'd better not to drive, which is not only responsible for others, but also for yourselves.

In theory, if a man drinks 350ml (equivalent to approximately one bottle) of beer or 25 grams white wine (20ml), then his or her blood alcohol concentration will reach 20mg/100ml. When the alcohol consumption increases to 1400ml (approximately equivalent to three bottles of 500ml) of beer or 75 grams white wine (80ml), the blood alcohol concentration will achieve 80mg/100ml. This data has some discrepancies with the actual test results, and the reason lies in that human body has different capacities of alcohol absorption and decomposition. For the same glass of wine, someone may drink it with little feeling, while some others drink it to be dead drunk. In addition, the most accurate results by using the breath tester may not be necessarily accurate, and the most accurate detection method is through blood tests. That is why the traffic police officer must take blood tests when they are identifying drunk driving.

WHO report shows that: When the driver's blood alcohol content reaches up to 80mg/100ml, that is, when it has reached the critical value of drunk driving, the chance of traffic accidents is 2.5 times of when there is no alcohol in the blood. When the alcohol content in blood reaches 100mg/100ml, the chance of traffic accidents is 4.7 times higher when there is no alcohol in blood. Even under a state of a small amount of alcohol, the risk of traffic accidents will reach two times of that without drinking.

#### Declaration

Regardless of whether the product is used, manufacturers and vendors will not bear any responsibility for the violations. For example: drunk driving and high-altitude operations driving.

Each person reacts differently to alcohol, so the test results are for reference only, which cannot serve as the criteria in determining the outcome.



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