# D1000 Portable Breathalyzer / Alcohol Tester with Digital Display


1. Intake nozzle (align the mouthpiece at the nozzle for post-installation puff test)
2. Switch the machine key / function key
3. IPS display screen
4. Test result indicator light
5. The Type-C charging port
6. Air gate
7. Restore the factory setting button
8. The voice indicates the sound hole

## Single-machine test steps

1. Long press [power button] 2 seconds to start up.
2. Insert the mouthpiece into the reserved hole.
3. Click [Power button] to enter the test interface, the screen shows "Ready".
4. The screen displays "Please blow" and a voice prompt. Please aim at the mouthpiece for 5 seconds. After starting blowing, the vibration will be reminded, and the vibration will stop after blowing for 5 seconds. If the blowing time is less than 5 seconds or the time is interrupted, the equipment will prompt the blowing to interrupt and re-enter the blowing stage.
5. After successful air blowing, the equipment enters the data analysis state.
6. After the data analysis, the voice test results are broadcast and displayed on the screen.
7. Click [Power button] to return to the main interface to prepare for the next test.
8. Long press [power button] the device shuts down, or stay for 60 seconds, the device automatically shuts down.
9. Screen display, indicator light strip description:

- Green light (Understandard state)
    1. When the measurement is < 0.2 g/l, the green light is on.
    2. When the measurement is < 0.030% BAC, the green light is on.
    3. When the measurement is < 0.15 mg/l, the green light is on.

- Yellow light (Drinking state)
  Drinking drive : ① Refers to the driving behavior of vehicle drivers with blood alcohol content ≥0.2 g/l and blood alcohol content < 0.8 g/l. ② Refers to the driving behavior of a vehicle driver with a blood alcohol content of ≥0.030%BAC and a blood alcohol content of <0.080%BAC. ③ Refers to the driving behavior of vehicle drivers with blood alcohol content ≥0.15mg/l and blood alcohol content <0.25mg/l. Yellow light, alarm sound;

- Red light (Drunkenness)
  Drunk driving: ① Refers to the driving behavior of a vehicle driver with a blood alcohol content ≥0.8 g/l. ② Refers to the driving behavior of a vehicle driver with a blood alcohol content ≥0.080%BAC. ③ Refers to the driving behavior of a vehicle driver with a blood alcohol content >0.25mg/l. The red light went on and the alarm sounded rapidly.

Measurement unit

- For commonly used units in various countries, the system sets the default units according to the selected language

  1 mg / 100 mL 1 China% BAC 1 USA g / 11 Europe mg/l BrAC 1 Japan

- 0.05% BAC, which means 0.05g (50mg) of alcohol per 100ml of blood.

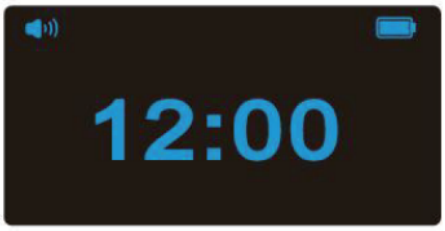
**Comparison Table of Breath and Blood Alcohol Concentration**

| Serial number | Company | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BrAC Alcohol concentration in exhaled breath | mg/L | 0.05 | 0.10 | 0.15 | 0.20 | 0.25 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.60 |
| BAC Alcohol concentration in the blood | mg/100ml | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| | % | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 |
| | %0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 |
| | g/l | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 |

Commonly used units in various countries: mg/100ml (China), %BAC (USA), g/l (Europe), mg/LBrAC (Japan)

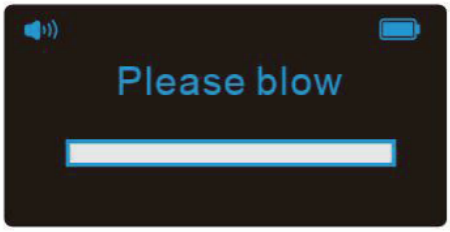
**Alcohol concentration progress bar**


drunk driving drunk driving

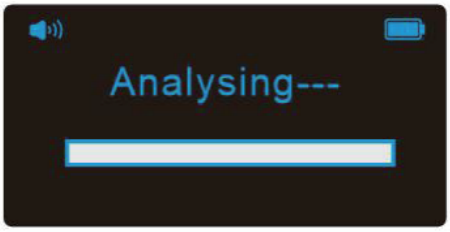



Home screen

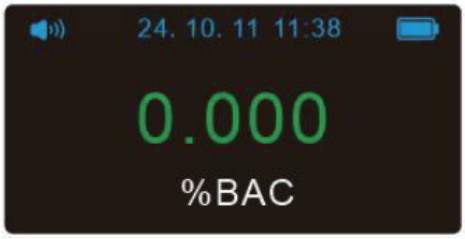

Test preparation



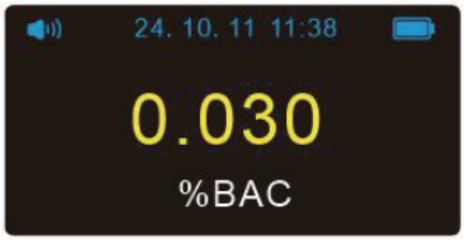

Please blow air



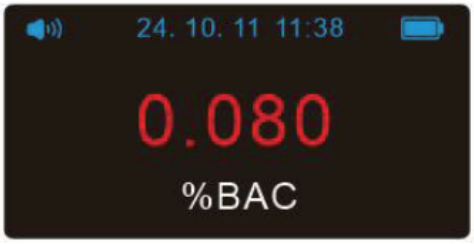

Analysing




Understandard state




Drinking state




Drunkenness

## Menu settings

1. Under the standby interface, long press [power button] for 2 seconds and "drop" to enter the main menu;
2. After entering the main menu, click the key to move the cursor and "drop" prompt sound to select the setting option;
3. Move the cursor to the menu option, long press the button for 2 seconds to confirm the function option, and the setting is completed;
4. Move the cursor to the "return" long press button for 2 seconds to return to the superior menu.
5. Test mode setting
6. Language setting
7. Sound setting
8. Time/date
9. History query
   The instrument has a data storage system that can record up to 1500 measurements; historical measurement data can be checked under the History menu; data stored in the data storage system will not be lost by the battery replacement; if the data storage system is full, the latest measurement data will cover the oldest storage data.
10. System information query

## Battery and charging

- The D1000 Smart breathalyzer has a large-capacity lithium battery that gives you up to a month of standby time after being fully charged.
  The status of the battery power icon in the upper right corner of the instrument screen indicates the current battery level.
- D1000 intelligent alcohol detector adopts USB Type-C standard charging interface, strong compatibility, fast charging speed, please use the Type-C5V2A charging adapter or charging bank in accordance with the national standard to charge the detector,
- Prohibition of inferior charging adapters for charging may cause product failure and damage.
- Battery icon red: low power please charge "↑"; battery icon green flashing: in charging; battery icon green segment full lit: battery full charge "2".

## Precautions for use

1. Important reminder
    - In order to obtain the most accurate results, no smoking, eating or drinking will be allowed 20 minutes before the test, which is the general principle of all breath alcohol detectors and is not unique to this product. The main reason is that if you just drink, the residual alcohol content in your mouth is very high, which will lead to serious test results.
    - For the first use or long use, fully charge first; enter the main menu, clean the sensor in test mode and then detect.

2. Effects of alcohol on the human body
    - Alcohol is absorbed from the mouth, throat, stomach, and intestines into the blood stream. Alcohol ingested is detected in the breath because it is found in the blood. When blood flows through the lungs, alcohol in the blood passes through the lung balloon (alveolar) film into the alveoli. Alcohol concentration in alveolar air is directly related to blood alcohol concentration. As the alveolar air comes out, the breath alcohol test device can detect alcohol.
    - Excitatory alcohol concentration correlates with concentrations in the blood, so individual blood alcohol concentrations can be determined by measuring ethanol concentrations in the breath. The ratio of breath alcohol to blood alcohol is generally 2,200:1. Thus, the alcohol content in 2200 ml of alveolar air is roughly the same as that of 1 ml of blood.
    - When you drink alcohol, some mental disorders may occur, including:
        - Lower awareness of danger
        - difficult decision-making
        - Slow reaction
        - Become overconfident and reckless
        - Lower balance
        - impaired judgment

3. How does alcohol affect our driving?

We should never emphasize the danger of drunk driving, vision and brain are the most important guarantee for safe driving, and drunk driving is likely to cause serious or fatal collisions.
**NOTE**: Do not use BAC 1 to determine whether you can operate motor vehicles or equipment or perform any other hazardous behavior. Drunk driving is strictly prohibited, do not try the law.

## Effects of different blood alcohol concentrations

- Blood alcohol concentration was 20 – 30 mg / 100 mL
  Impact effect: excitement, loss of shyness.

- Blood alcohol concentration ranged from 40 to 60 mg / 100 mL
  Impact effect: Happiness, physical relaxation, low restraint, and warmth. There are some slight impairments in brain logic and memory. Reduced alertness. This level of intoxication may affect driving skills.

- Blood alcohol concentration was obtained from 70 to 90 mg / 100 mL
  Impact effect: balance, language, vision, reaction time, and hearing were slightly impaired. Less excitement, judgment, and self-control. Care, sanity, and impaired memory. At this level of intoxication, driving skills are impaired.

- Blood alcohol concentration was from 100 to 120 mg / 100 mL
  Impact effect: motor coordination is significantly impaired, loss of good judgment. The speech may be ambiguous. Balance, vision, reaction time, and hearing can all be impaired.

- Blood alcohol concentration was obtained from 130 to 150 mg / 100 mL
  Impact effect: severe movement impairment and lack of physical control. With blurred vision and loss of balance. Euphoria decreases and anxiety begins to appear.

- Blood alcohol concentration was obtained from 160 to 200 mg / 100 mL
  Impact effect: Anxiety is predominant, accompanied by physical discomfort such as nausea.

- Blood alcohol concentration was from 200 to 300 mg / 100 mL
  Impact effect: Walking needs help, confusion, with nausea and vomiting.

- Blood alcohol concentration above 300mg / 100 mL
  Impact effect: loss of consciousness, coma, and possible death due to respiratory arrest.

## Debugging

Fail to blow?

- Error caused by improper use during the blowing process; the blowing air did not reach 1.0 liters.
- Begin to ensure continuous blowing, and reach the level of 1L.

No response/unresponse during measurement?

- The blowing pipe is blocked by a foreign body or has saliva coming into it.
- Clean the pipe with a wet cotton swab.

There is no value in the wine test?

- Blowing air pipe blockage; Repeated measurements of high-of alcohol levels; Sensor damage.
- Whether the air blowing pipe is blocked, enter the main menu test mode to enter the equipment reset zero; The sensor is damaged and should be returned to the factory for repair.

No wine measurement is valuable?

- The mouth contains sugar-containing alcohol residue; Smoking or eating alcoholic food or beverages.
- If the above phenomenon still has values, it needs to return to the factory to recalibrate.

Timing error?

- Time, date and error; No effect on the examination results.
- Enter the main menu; Re-set.

Operating the crash?

- Misorperation; Repeat testing for high concentrations of alcohol.
- Restart with the reset key; Enter the main menu test mode to enter the equipment reset zero.

## Essential parameters

- Product name: Portable alcohol detector
- Product model: D1000
- Sensor: Fuel cell type alcohol sensor (electrochemical)
- Blowing time: 5 seconds
- Response time: 1–15 seconds
- Recovery time: Test result > 80mg / 100 mL, recovery time < 20 seconds
- Measuring range: 0~400mg / 100 mL
- Detection accuracy: ± 6mg / 100ml
- Power supply battery: 300 mAh
- Charging mode: Type-C DC5V / 1A
- Charging time: 1H
- Case material: ABS engineering plastics
- Display screen: 0.96OLED color display screen
- Key operation: single key operation
- Operating environment: temperature: -5℃ ~ 45℃
- Storage temperature range: -20℃ ~ 50℃
- Product size: 45 x 70 x 16.5 mm
- Product weight: 38g