sisco

ZM2100 Alcohol Tester
User Manual

1、Summary

The ZM2100 portable alcohol detector combines an alcohol detector with a baton, mainly used for rapid alcohol detection. It uses a pump suction method for quicker and more accurate detection. The device employs an electrochemical fuel cell type alcohol sensor, offering excellent sensitivity and repeatability, with an embedded microcomputer control for easy operation. The shell is made of high-strength engineering plastic for durability and good hand feel.

2、Parameter description

◇ **Detection Method:** Pump suction
◇ **Sensor Type:** Electrochemical fuel cell type alcohol sensor
◇ **Detection Gas:** Alcohol
◇ **Measurement Range:** 0 to 220 mg/100mL
◇ **Blowing Distance:** ≤5 cm
◇ **Detection Time:** Adjustable from 3 to 15 seconds
◇ **Working Humidity:** 15 to 93% RH
◇ **Response Time:** ≤2 seconds
◇ **Indication Error:** ≤±5 mg/100mL
◇ **Indication Methods:** Indicator light, sound, vibration alarm
◇ **Baton Mode:** Indicator light always on/flashing
◇ **Operating Voltage:** DC 3.7V lithium battery, 2000mAh
◇ **Power-saving Mode:** Automatic shutdown after 3 minutes in standby without baton mode

◇ **Charging Time:** ≤6 hours
◇ **Standby Time:** Not less than 8 hours (non-alarm state)
◇ **Sensor Life:** 2 years (electrochemical)
◇ **Dimensions:** 383mm x 66mm x 47mm (L x W x H)
◇ **Weight:** Approximately 300g

3、Alcohol Detector Overall Structure

Air Inlet

Flashlight

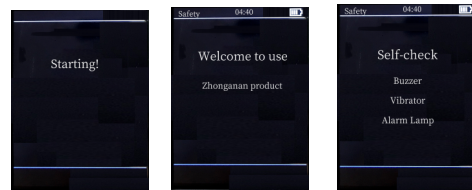Display Screen

key

Handle

4、Operating instructions

4.1 Power On

In the off state, press the button for more than 2 seconds to turn on the detector. The system will automatically execute the following self-check procedures:

1 Welcome screen.
2 Power-on sound, test alarm sound, vibration, and alarm light functions to check all functionalities.
3 Display low and high alarm thresholds and detection range. After the self-check procedure ends, the device enters standby mode.

4.2 Power Off

In standby mode and when the device is in detection mode, press the power button. The display will prompt whether to shut down (to prevent accidental operation). Press "Right Key" to cancel the shutdown. Press "Left Key" to select shutdown, the detector will shut down with a prompt sound, and the screen will go off indicating the shutdown is complete. If no operation is performed in standby mode for over 3 minutes, the system will automatically start a 60-second shutdown countdown. If still no operation is performed, the detector will shut down to reduce unnecessary power consumption.
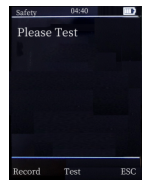
4.3 Standby Interface Functions

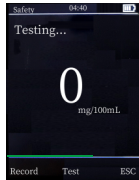Alarm Light: Press "Right Key" to switch the alarm light state (off, flashing, always on).

Detection: Press the "Detection" button to enter the alcohol detection interface.
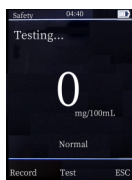
sisco

Settings: In standby mode, press the "Settings" button, enter the factory default password 1111. Use "Up" and "Down" to adjust the value, "Confirm" key to move right. After inputting, click "Confirm" to enter the user menu settings.

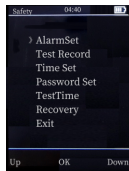Please Test   Testing   Test result

4.4 Detection Interface Buttons

Detection: Press the "Detection" button, the screen shows 'Device Ready'. Press the "Detection" button again, the screen shows 'Detecting', and the instrument starts detecting, the suction pump starts working. After about 10 seconds (if results are obtained in the first detection cycle, it will automatically jump to the detection result), the instrument completes the detection, the screen shows 'Detection Finished' and displays the result.

Records: Displays past detection records, including the total number of current detection records, detection time, detection concentration value, and detection status. In the record viewing interface, press "Left Key" and "Right Key" to view each record detail. Press "Options" to clear records or exit record viewing.

Exit: Exit detection and return to standby mode.

4.5 User Menu Settings

Alarm Settings: Set 'Drinking' and 'Drunk' alarm thresholds (default national standard values).

Detection Records: View past detection records.

Time Settings: Set system time.

Password Settings: Set system password, initial password is 1111.

Detection Time: Set the length of detection time. The longer the time, the less likely to miss detection, but it shouldn't be too long.

Restore Settings: Restore factory settings.

Exit: Exit the user menu and enter standby mode.

Warning: Charging during power-on state cannot guarantee accurate detection data. Do not charge the detector while detecting to avoid affecting charging speed and battery life.

4.6 Alcohol Detector Alarm Indications

When the detector detects 'Drinking' or 'Drunk' alarm values, the alarm light flashes with vibration and alarm sound, alerting the testing personnel.

5. Usage Precautions

5.1 Prevent the device from falling from a height or suffering severe shocks.

5.2 When detecting high-concentration gases, the detector needs at least one minute or longer to recover to avoid affecting detection accuracy.

5.3 otherwise, it may lead to inaccurate detection results or damage to the device.

5.4 Do not store or use the product in environments containing corrosive gases (such as high-concentration chlorine gas) or other harsh environments, including high/low temperatures, high humidity, electromagnetic fields, and strong sunlight.

5.5 If the surface of the device is dirty after long-term use, clean it with a soft cloth dampened with water. Do not use corrosive solvents or hard objects to wipe the surface to avoid scratches or damage.

5.6 To ensure detection accuracy, the device should be calibrated regularly, with a calibration cycle not exceeding one year.

5.7 Remove and dispose of the lithium battery and sensor at designated locations or return them to our company. Do not throw them into the trash.

5.8 For any applications or usage failures beyond this manual, contact the manufacturer for solutions.

5.9 Do not disassemble or replace the battery pack, or charge the battery pack in explosive gas environments. Do not use non-explosion-proof certified external devices or replace sensors in explosive gas environments.

6. Storage

The detector should be stored in a ventilated room with an ambient temperature of -10°C to 55°C and relative humidity not exceeding 85%, without harmful gases or impurities that can corrode the transmitter.

7. Accessories

Portable alcohol detector: 1 unit   harger: 1 set

Certificate and warranty card: 1 copy   User manual: 1 copy

Factory inspection report: 1 copy

8、 Common faults and Solutions

Fault Condition	Possible Cause	Solution
Cannot power on	Low voltage	Please charge in time
	Frozen	Contact dealer or manufacturer
	Circuit failure	Contact dealer or manufacturer
Circuit failure	No response to detected gas	Contact dealer or manufacturer
Inaccurate display	Sensor expired	Contact the dealer or manufacturer to replace the sensor
	Previous detection concentration too high	Perform multiple detections in the air to quickly diffuse the alcohol in the tube and lower the concentration
Incorrect time display	Battery completely drained	Charge promptly and reset the time
	Strong electromagnetic interference	Reset the time
Instrument shows full scale on normal detection interface	Sensor fault	Contact the dealer or manufacturer to replace the sensor