

# CA20FL

## Owner's Manual



**Fuel Cell technology**  
**Digital Alcohol Detector**

# Part Names



This device is a breath alcohol tester designed to measure the presence of alcohol in the body. Please make sure to read this manual thoroughly before use.

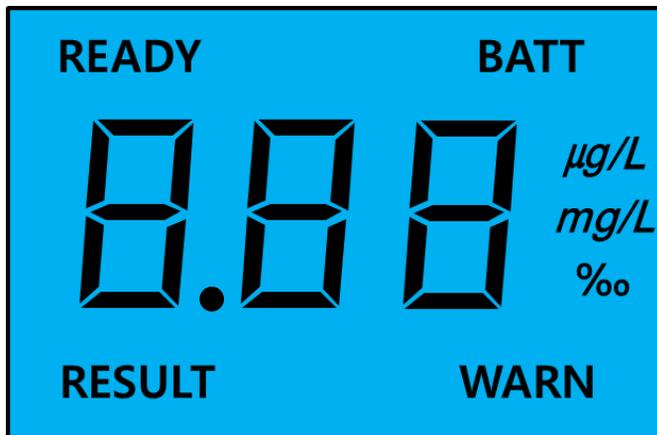
**DO NOT DRINK AND DRIVE**

# Display

Start blowing when the **READY** signal is on the display.

**BATT** signal means low battery voltage.  
It is recommended to replace 9V battery.

Test result is displayed in BrAC / Promile data correspondent to the 3<sup>rd</sup> decimal readout at BAC.



Measurement unit is set to the region standard.

Test result is displayed with the **RESULT** signal.

This unit has Dual Color LCD Backlight.  
See the Error Notification section in the manual.

If the result is over 0.050%BAC(or equivalent to it in other measurement standard) the **WARN** signal is displayed.

# Operation

1. Insert a mouthpiece into the mouthpiece inlet.
2. Push the ON/OFF power switch that is located in the right side under the display window.
  - The unit will show “Full display” firstly and “on” along with a welcome sound. And then it starts countdown which will be taken about 15 ~ 35 seconds. This warm-up process prepares the sensor and circuit for testing.
3. When you hear a beep sound & “bLo” display is on, please blow steadily into the mouthpiece until you would hear the “Beep” sound again. Stop blowing.
  - In this stage, if you don't blow within 20 seconds, it automatically turns off. Try to power on again.
4. After the circling line is on the display for 3 ~ 22 seconds, the test result (mg/l BrAC or ‰ Promile) will be displayed for 20 seconds along with beep sound.
  - If the test result is over 0.25mg/l / 0.50‰ (default setting) respectively, the LCD color will be changed to red and “WARN” signal will be displayed along with “Alarm” sound.
  - The result will be displayed for 20 seconds. (light on for the first 15 seconds and light off for another 5 seconds). If you push the power switch during the last 5 seconds, the unit goes back to countdown stage for another test.
5. Finally, the unit will show “OFF” and turn off automatically along with a sound.
6. For the successive testing, try again from No.2 to No.4.
7. Space tests at least 2 minutes apart.

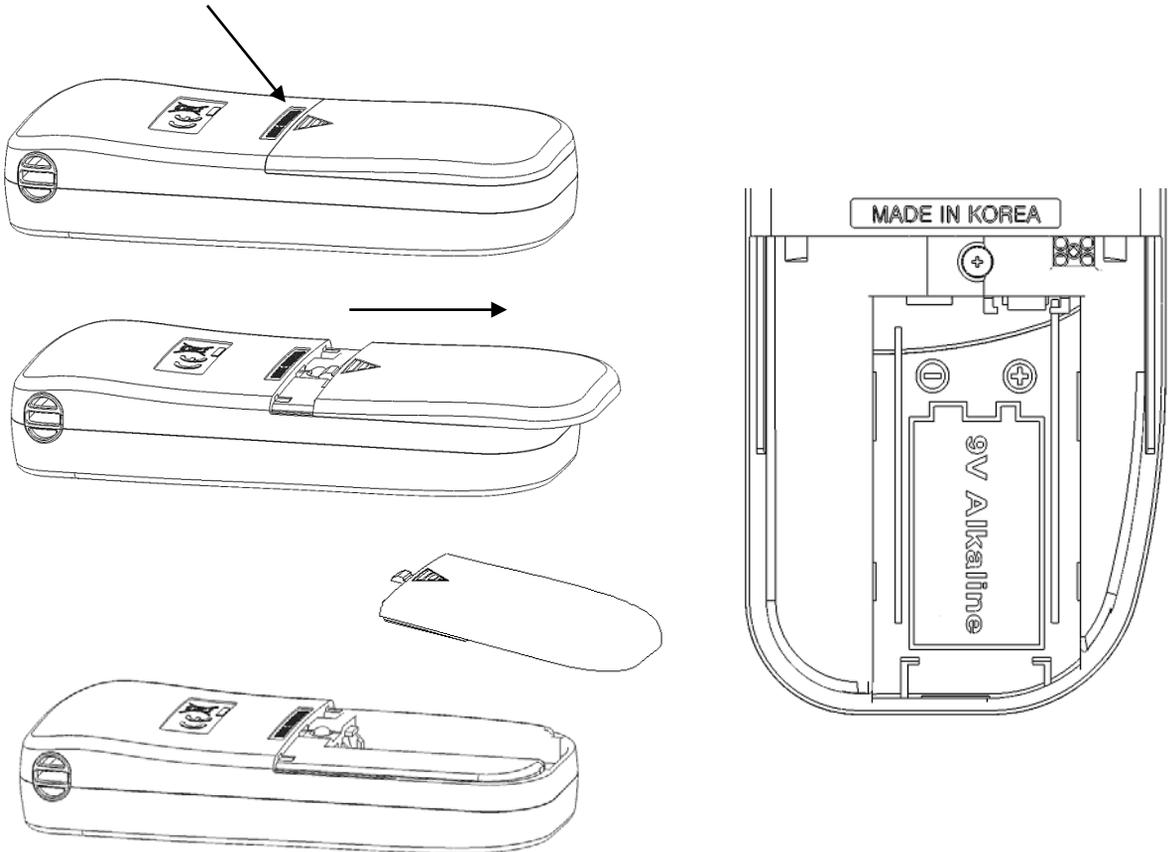
# Error (Warning) Notification

Error Message	Cause & Action	Error Message	Cause & Action
	<p>If the result is higher than 0.25mg/l BrAC (0.50‰ Promile), "WARN" signal is displayed along with "ALARM" sound.</p>		<p>The battery voltage is too low to perform a test. The device will turn off automatically after showing this signal. Replace 9V Alkaline Battery.</p>
	<p>If the result is above 2.00mg/l BrAC (4.00‰ Promile), "Hot" signal is displayed along with alarm sound.</p>		<p>The user had a short exhale time during the test, which likely means the user did not exhale steadily and continuously for at least 3~5 seconds. Push the power button to perform another test.</p>
	<p>When the test time is over 500, the unit shows "CAL". Even if the unit still works, it is required the re-calibration. Consult to the seller or local distributor for the service.</p>		<p>When the ambient temperature is out of working temperature range (5°C ~ 40°C) the unit shows "OUT" and then turn off. Keep and use the unit within the recommended temperature range.</p>

\*\*\* N.B. : Any of these error occurs, the LCD Backlight turns red to give notice.

# Battery Replacement

Apply a small amount of pressure on the battery cover located on the back of the unit and push down and away from the unit to release the cover.  
See the following diagram.



\*\*\* N.B. : Make sure to insert the battery with the proper position of positive(+) and negative(-) as indicated.

# Precautions

1. After drinking, smoking and eating, it is recommended to test after 20 min.
  - It is because it takes 20 min. approximately for alcohol to be absorbed into blood from the digestive organs, and residual alcohol remaining in the mouth takes this long to dissipate.
2. Avoid testing under strong wind or in the closed room with contaminated air.
3. When the “**BAT**” signal is on the display, it is advisable to replace 9V alkaline battery.
4. Do not blow cigarette smoke, food or liquid into the instrument because this may damage the sensor.
5. Do not use this unit as a tool to determine whether you or anyone else should operate any motor vehicle or machinery.
6. Keep it under 0 – 40 °C (32 – 104 °F). And this device is designed to be used in a temperature range of 5 – 40 °C (41 – 104 °F). Keep and use the unit within the recommended temperature range.
7. Correlation between breath alcohol content and blood alcohol concentration depends on many variables, including environmental factors (such as air quality, wind, humidity, temperature, etc.) and health conditions of the test subject.
8. In normal use, CA20FL requires re-calibration every 6 months or after 500 tests to obtain accurate results. Discuss with local distributors for re-calibration.
9. You cannot use the results of this unit in court of law. The driver holds full responsibility for driving under the influence of alcohol.
10. Do not use this device in conjunction with an ignition interlock device or while sitting in a motor vehicle .
11. An individual's testing result can continue to increase or decrease over time, depending on many factors. Obtaining a testing result reading at one time does not mean the testing result reading will be the same even a few minutes later.
12. Do not let yourself or anyone else drink and drive. Always use a designated driver when you or anyone else drinks alcohol.

# Specifications

Sensor	Smart Fuel Cell sensor
Accuracy	±0.005% BAC at 0.050% BAC
Detection Range	0.00 ~ 2.00mg/l BrAC 0.00 ~ 4.00‰ Promile
Warm-up Time	15 ~ 35 seconds
Response Time	3 ~ 22 seconds
Dimension	125mm x 56mm x 24mm
Weight	87g, (131g Battery included)
Power Supply	9V alkaline battery
Working Temp.	5 °C ~ 40 °C
Storage Temp.	0 °C ~ 40 °C
Calibration	Every 6 months or after 500 tests
Warranty	1 Year Limited Warranty

# Warranty

Manufacturer warrants for 1 year the product to be free from defects in workmanship or material (excluding calibration) in normal service from the date of purchase.

Manufacturer's obligation under the 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.