Dignita®
powered by SMART START

MANUAL

Dignita alcometer

Fuel cell sensor with high measurement accuracy

AM-7000



- Fuel cell technology
- Fast response time
- Saves last 10 measurements
- Automatic shutdown
- Calibration timer

Tested by MHF Test Lab in 2015 and meets the requirements of EN 16280:2012.

1. Introduction

Thank you for choosing a Dignita AM-7000, a highly reliable alcometer.

The AM-7000 measures alcohol on the breath, which reflects the body's blood alcohol level.

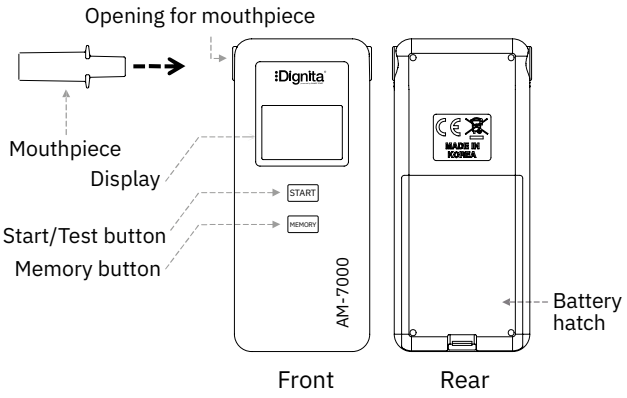
2. Important information

- Never drive with alcohol in the body as even small amounts of alcohol negatively affect driving.
- The alcometer must be calibrated after 12 months or 500 conducted tests, whichever comes first.
- If the alcometer is not calibrated, measurement results may become misleading.
- To obtain reliable measurement results, wait at least 15 minutes after eating, drinking or smoking before using the alcometer.
- When in doubt, rinse your mouth with water before testing.
- If you have recently drunk alcohol, there is still alcohol in your mouth that can damage the fuel cell.
- Do not blow too hard as saliva penetration can damage the fuel cell.
- Do not blow cigarette smoke into the alcometer as it can damage the fuel cell.
- Do not expose the alcometer to water or moisture.
- If tests are done immediately after a test with a high measurement result, the warm-up time may be longer.
- Do not conduct tests outside the specified temperature range as the measurement results may be incorrect.
- Change batteries when the battery indicator shows zero; the results can be affected by bad batteries.
- Remove the batteries if the alcometer is not used for a long time.
- Do not store the alcohol meter in a hot or humid place.
- Keep out of reach of children.
- Dignita does not accept any legal responsibility for the test results.

3. Package contents

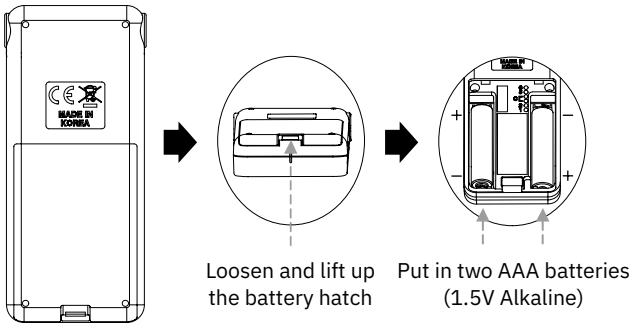
- Digital Alcometer AM-7000
- Two AAA batteries
- Two mouthpieces
- Storage bag

4. Description of parts



5. Prepare for use

Install two AAA batteries in the battery compartment with the right end against the +/- poles.



Remove a mouthpiece from the plastic packaging by opening the packaging at the mouthpiece's narrow end, i.e., the part that is not touched by the mouth when blowing. Do not touch the part of the mouthpiece that one blows into.

Hold the mouthpiece by the plastic wings when it is inserted into the meter's opening for the mouthpiece. Check that the mouthpiece sits properly and preferably use a new mouthpiece for each test.

6. Perform the breath test

Wait at least 15 minutes to take a breath test after eating, drinking or smoking.



Step 1: Push the Start button. The total number of tests taken is shown on the display.



Step 2: The number of days until the next calibration session is shown after the number of tests. The blue LED light on both sides of the exhalation tube will flash and the message ‘CAL’ will appear in the display when it is time to calibrate the meter.



Step 3: The countdown for the test starts automatically; take a deep breath once the countdown reaches 2.



Step 4: When the countdown reaches 0, a double beep sound is heard. The display shows three lines and a flashing “START”. Blow into the mouthpiece for about 5 seconds until there is a double beep sound that confirms that a sample is taken.



Step 5: When the breath test is done correctly and analysed, lines move around the display.



Step 6: After a few seconds, the test result is shown flashing on the display for about 10 seconds.

If another test is to be done immediately, push the Start button again. Otherwise, the meter is automatically switched off after 15-20 seconds. If you want to turn off the meter earlier, you can push and hold in the Start button for a few seconds in steps 3 and 4.

7. Change the limit

When the alcometer is switched on for the first time, a pre-set limit when the meter alerts for a too high alcohol level will be shown and activated automatically. This is not shown at the second use and thereafter. To change the limit, push and hold the Memory button for 10 seconds after which the limit can be changed and set to five different levels: 0.00‰, 0.20‰, 0.40‰, 0.50‰ and 0.80‰.

The limit is chosen by pushing the Memory button and then ”browsing” up to the limit desired.

Once a new limit has been selected, push the Start button to save the new setting.

8. Memory

The alcometer saves the last 10 results and measurement times in the memory. To access the memory, push the Memory button during the countdown (Stage 3). Time of the saved measurements is shown in the following way:

1) Up to 600 minutes (10 hours) after a test is shown the time as “-XXX”.

   For example: 1 minute ago: -001
   23 minutes ago: -023

2) Time since test 601 minutes ago to 1 day is shown as “dXXX”.

   For example: 11 hours ago: d000
   22 hours ago: d000

3) Time since test 1 day ago to 999 days is shown as “dXXX”.

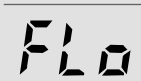
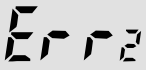
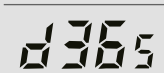
   For example: 23 days ago: d023
   523 days ago: d523

Subsequent test results with time are shown when the Memory button is pushed.

The alcometer shows up to 10 measurement results with time.

When the memory is full, the oldest measurement result is automatically replaced by the newest.

9. Display information

Message	Explanation	Action
	Full battery capacity.	No action.
	Low battery capacity: Warning when batteries are weak. The meter can be used, but the batteries should be changed to get correct results.	Change to new batteries.
	If the display shows "BAt", the batteries are completely used up.	Change to new batteries. Loosen the hatch on the back and remove the batteries. Insert new batteries according to point 5.
	The exhalation is too short, uneven or weak.	Push the Start button again for a new test.
	If no test has been started within 30 seconds, the display shows “Out”.	Push the Start button again for a new test.
	Shown when the temperature is outside the approved range.	Do a new test once the temperature has reached the approved range.
	If the display shows “Err2” after step 5, this means that too much saliva or moisture came into contact with the fuel cell.	Wait at least 20 minutes before a new test is done.
	Once 500 tests have been taken, the alcometer must be calibrated even if it has not been a year since the last calibration.	Contact Dignita or another calibration workshop to carry out a calibration. Without regular calibration, incorrect results can be shown.
	When “CAL” is shown on the display after the countdown, 365 days have passed since the last calibration.	Contact Dignita or another calibration workshop to carry out a calibration.
	Number of days remaining until the next calibration.	Contact Dignita or another calibration workshop to carry out a calibration.
	Number of days that have passed since the meter should have been calibrated.	Contact Dignita or another calibration workshop to carry out a calibration.
	The display shows "HI" for test results above 1.00‰.	

10. Technical specification

Measurement range	0,000 - 0,100 BAC 0,00 - 1,00 ‰ 0,00 - 0,50 mg/l
Measurement accuracy	+/- 5% at 0.1 BAC at 25°C +/- 5% at 1.0‰ at 25°C +/- 5% at 0.50 mg/l at 25°C
Results	The display shows HI for results above 0.100 BAC, 1.00‰ or 0.50 mg/l. Results under 0.008 BAC are shown as 0.000 BAC. Results below 0.08‰ are shown as 0.00‰. Results below 0.04 mg/l are presented as 0.00 mg/l. The above are requirements according to the EN standard.
Measurement technique	Electrochemical fuel cell
Power supply	Two AAA alkaline batteries
Battery life	About 1,000 tests
Measurements	47 mm x 108 mm x 17 mm
Weight	85g with batteries
Calibration	Every 12 months or earlier if 500 tests have been taken.
Approved temperature range	10 - 40 °C
Warning limit	The meter emits 10 sound signals (beeps) if the result exceeds the applicable limit.

11. Warranty

The product's warranty period is one year from the purchase date. The warranty is extended by 12 months at a time to a maximum of 36 months from the purchase date if the meter is calibrated by Dignita. During the warranty period, all demonstrable product defects are fixed free of charge.

The following warranty terms apply:

- No other claims for damages or consequential damage are accepted.
- Repair or replacement of parts does not lead to an extended warranty.
- The warranty does not apply if the meter has been subjected to some form of external impact or if repairs have been made by an unauthorised person.
- The warranty only applies on presentation of a dated purchase receipt.

12. Customer service

Contact Dignita's resellers regarding questions, service, warranty matters, calibration or to order mouthpieces.

13. Recycling

Used mouthpieces shall be submitted to plastic recycling at designated locations. Disposal of the alcometer shall take place at an electronics recycling centre.

14. Supplier

Dignita Alcometer AM-7000 is distributed by Dignita Systems AB, Formvägen 16, 906 21 Umeå, Sweden. Find contact details on www.dignita.com