



Dräger Alcotest[®] 6510 - Dual Limit Breath Alcohol Screening Device
Approved by the Medical Bureau of Road Safety (MBRS)
Instructions for Use



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1 For your safety

Follow the instructions for use

Any use of the device requires understanding and observation of these instructions.

The device is only to be used for the purposes specified herein.

Maintenance

Maintenance must only be performed by experts.

All repairs are carried out by Dräger or the Medical Bureau of Road Safety (MBRS).

Only authentic spare parts may be used for maintenance.

Liability for proper function or damage

The device is not to be serviced or repaired by any person not employed or authorised by the MBRS.

Dräger cannot be held responsible for damage caused by non-compliance with the recommendations given above.

The warranty and liability provisions of the terms of sale and delivery of Dräger are likewise not modified by the recommendations given above.

Dräger Safety AG & Co. KGaA

2 Intended use

The Alcotest[®] 6510¹⁾ is an apparatus for indicating the presence of alcohol in the breath. The Dual Limit Dräger Alcotest 6510 device was approved by the MBRS on 9th December 2010. For mobile use with batteries.

2.1 Preparation

The Alcotest 6510 is supplied calibrated to the MBRS by the manufacturer. If the calibration date exceeds 6 months arrange to have the device calibrated by the MBRS. The date of the last calibration can be found in the menu (page 11).

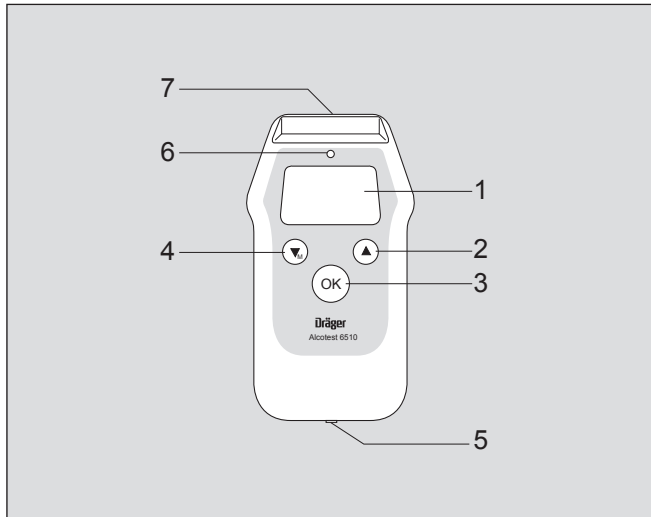


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1) Alcotest is a registered trademark of Dräger.

3 Product overview

3.1 Measuring device

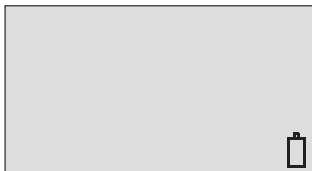


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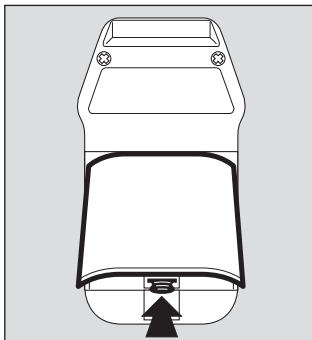
4 Preparation

4.1 Inserting the batteries

Upon initial operation or if the battery symbol on the display indicates **"empty"**.



1. Gently press onto the lock of the battery compartment and remove cover.
2. Observe correct polarity when inserting the batteries!
3. Close battery cover.

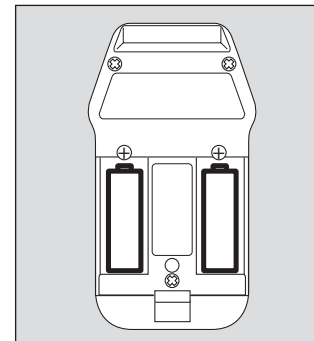


4.2 Batteries to be used

2 each 1.5 V Type Alkaline
(Mignon, LR6, AA)

or

rechargeable battery 2*1.2 V NiMH




NOTICE

Charging batteries while in the device will cause damage to the device.

Battery symbol

Indicates the battery charging status:

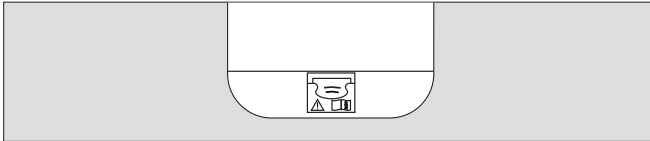
 Full battery

 50 % battery capacity

 Empty battery

**NOTICE**

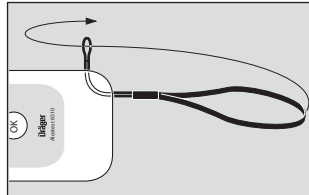
The symbols under the battery flap mean: Attention! Please consult the user instructions!
Before changing batteries, please read the instructions. The service socket is not for charging. Never insert a power cable.



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4.3 Fixing the hand strap

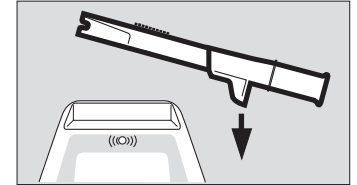
1. Insert the smaller loop into the hole in the housing.
2. Thread the longer loop through the eyelet and pull through.



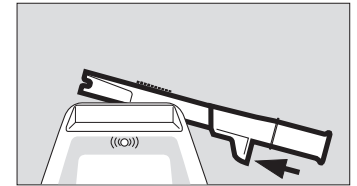
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4.4 Fitting the mouthpiece

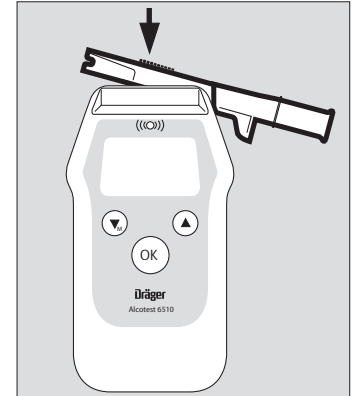
1. Open packaging. To keep the mouthpiece hygienic, retain the part to come in contact with the mouth covered by the wrapping until the mouthpiece is correctly fitted to the device.
2. With the grooved markings facing up, press the mouthpiece into mouthpiece receptacle until a click sound confirms correct engagement.
3. Remove packaging completely and commence breath test.
 - Mouthpiece can be used with orientation to right or left side.



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4.5 Switching on and off

4.5.1 Switch on

- Keep  - button pressed for approx. 1 second until start window is displayed.



4.5.2 Switch off

- Keep  - button pressed.

The device displays the shut down time.



4.5.3 Automatic switch off

The device switches off automatically 4 minutes after the last use.

When the batteries are discharged the device switches off automatically.



5 Performing the measurement

Conditions

- A new mouthpiece is to be used for every person tested.
- Do not apply too high alcohol concentrations on to sensor, e.g. by rinsing the mouth with high-grade alcohols shortly before the measurement. By doing so the sensor service life is reduced.

5.1 Requirements of the person to be tested

- At least 20 minutes should elapse between the persons last drink and before using the device. Residual alcohol in the mouth can distort the measurement. Aromatic drinks (e.g. fruit juice), mouth sprays containing alcohol, medicines can interfere with measurements. Rinsing the mouth with water or non-alcoholic drinks does not reduce this waiting period!
- Before sampling the person to be tested must breathe normally. Quick inhaling and exhaling through the mouth must be avoided.

5.2 Automatic measurement

- The sampling is activated automatically. There is no provision for manual sampling.




5.2.1 Preparation

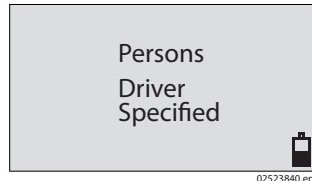
1. Insert new mouthpiece in the holder (page 7).
2. Switch device on (page 8).



- After 2 seconds **"WAIT"** is indicated on the display.



- After approx 8 seconds the choice of person screen is displayed. Use the  and  buttons to choose person and the  -button to confirm.

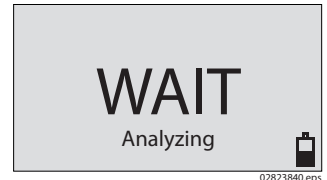


- After approximately 6 seconds **"READY"** is displayed and a short audible signal is given.
- At the same time the current test number is indicated. A green light flashes.
- The device is ready for measurement.



5.2.2 Performing the measurement

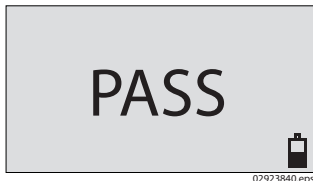
1. Ask the test subject to blow evenly into the mouthpiece without interruption. A sufficient flow is indicated by a continuous tone and a green light.
- Whilst the subject is blowing the display shows: **"Blow"**.
2. When the sampling is successful the green light will cease and the continuous tone will stop. Instruct the subject to stop blowing. The display shows: **"WAIT Analyzing"**.



5.2.3 Test result

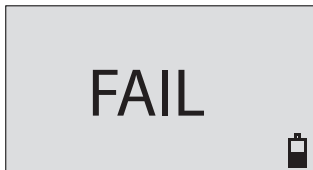
The breath alcohol value is measured in $\mu\text{g}/100\text{ mL}$. The result is displayed as **"PASS"** or **"FAIL"**.

PASS
Driver $\leq 22\ \mu\text{g}/100\text{ mL}$
Specified $\leq 9\ \mu\text{g}/100\text{ mL}$



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FAIL
Driver $> 22\ \mu\text{g}/100\text{ mL}$
Specified $> 9\ \mu\text{g}/100\text{ mL}$



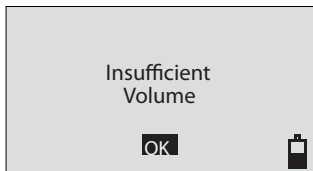
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- Press the  - button to return to the Persons screen.


5.3 Error in delivering the breath sample




If the sampling volume is too low or the sampling time is too short, the display shows: **"Insufficient Volume"**.

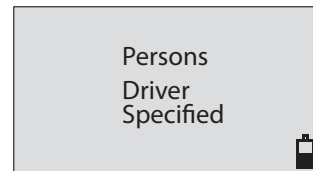
- The beep sounds briefly and a red light flashes.



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- To repeat press the  - button.

- Use the  and  buttons to choose person and the  -button to confirm. The device is ready for measurement after 4 seconds.







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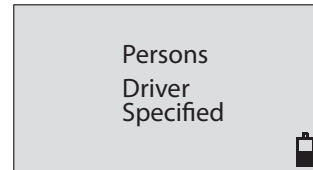
If the subject exhales incorrectly e.g. by abruptly stopping or sucking at the end of sampling, the display shows either **"Blow Interruption"** or **"Insufficient Volume"**.

- The beep sounds briefly and a red light flashes.



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- To repeat press the  - button. The device is ready for measurement after 4 seconds.
- Use the  and  buttons to choose person and the  -button to confirm. The device is ready for measurement after 4 seconds.



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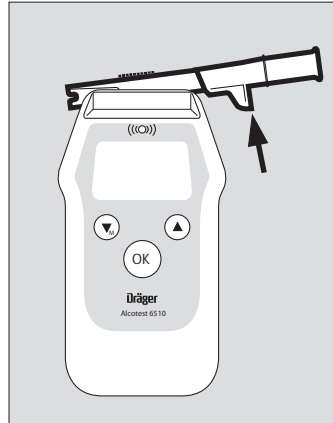


NOTICE

Switching the device off in the meantime does not reduce the waiting period!

5.4 Removing the mouthpiece

- Push the mouthpiece out of the mouthpiece holder.
- Dispose of the mouth piece properly.



6 Menu

6.1 Activation

1. Switch device on. When **"READY"** appears on the display the menu functions can be called up.
2. For menu press button briefly.

6.2 Operation

- Select functions using and buttons.
- The selected function is highlighted.
- Activate the selected function by pressing - button.
- Selecting **"Back to measurement"** and pressing the - button brings the device into the measuring mode.

If no button is pressed within 120 seconds, the device automatically returns to the measuring mode.

6.3 Menu

Last test

Display of the last test.

Back with - button.

Accuracy check

Confirm proper measuring operation.

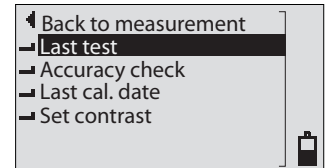
Last cal. date

Display of last calibration date.

Back with - button.

Set contrast

Change by pressing and . Back with - button.







6.3.1 Procedure for carrying out an accuracy check



NOTICE

Accuracy checks may be carried out in either the "**Specified**" option or "**Driver**" option.

1. From the Menu select "**Accuracy check**" and press the  - button.
 - The display shows the calibration check gas to be used.
 - "**Next**" is automatically highlighted at the bottom of the screen.
2. Press the  - button.
 - After a short period, "**Supply gas**" is displayed.
3. Fit a clean dry mouthpiece to the device.
4. Connect the outlet from the check gas cylinder to the mouthpiece and allow gas to flow through the mouthpiece by pressing the valve on top of the gas cylinder.
 - A Beep is heard, followed by an audible click, when the device has sampled the gas and "**Remove gas, Analysing**" is displayed momentarily.
5. Stop the flow of gas by releasing the valve at the top of the gas cylinder.
 - The Check value and the Result of the check are displayed and "**Next**" is highlighted at the bottom of the screen.
 - The result should be between 19 to 24.9 µg/100 mL.
6. Record the result on the record sheet provided for that purpose. If the result lies outside this range contact the MBRS.
7. Press the  - button to return to menu.
 - The display may show the recovery time counting down to zero.
8. Scroll up to "**Back to measurement**".
9. Press the  - button.
 - The device returns to the Ready mode.

7 Maintenance

The operator may change the batteries as required (see page 13).

7.1 Testing

It is advisable that an accuracy check is carried periodically, i.e. on a monthly basis (see page 12).

7.2 Calibration

The device should be returned to the MBRS for recalibration at 5-7 month intervals.

7.3 Storage

- The Alcotest® 6510 consumes a small amount of current even when switched off. Therefore remove the batteries from the device during long periods without use.
- The Device should not be stored under extremes of temperature.



CAUTION

Used alkaline batteries must not be thrown into open fire, be recharged or opened by exerting force. Danger of explosion!



NOTICE

In case of long storage periods
Remove batteries from device, if the device is not used for more than 6 months to avoid damage to the device caused by leaking battery acid.

- Only dispose of as special waste in accordance with local waste disposal regulations.
- For more information about suitable waste disposal companies please contact the local authorities for environmental protection.

7.4 Cleaning

- Do not submerge in liquid – liquid must not enter the sockets!

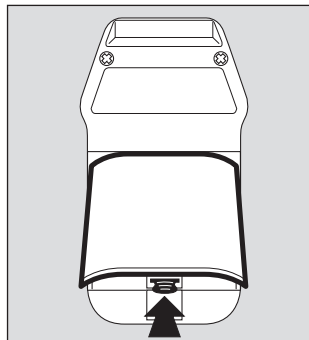
To clean:

- Wipe with a disposable tissue.
- Do not use cleaning agents containing alcohol or solvents.

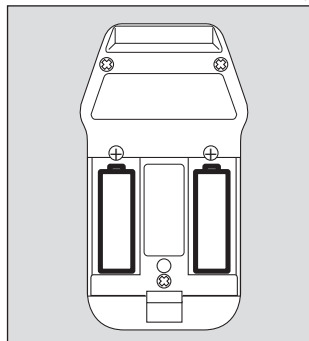
7.5 Changing the batteries

If the battery symbol on the display indicates "empty", change the batteries.

- Gently press onto the lock of the battery compartment and remove cover.
- Remove used batteries and insert new ones – consider correct polarity.
- Close battery cover.



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7.5.1 Required batteries:

2 each 1.5 V Type Alkaline (Mignon, LR6, AA)
or
rechargeable battery 2*1.2 V NiMH

- For continuity of use it is recommended always to have replacement batteries or an additional battery supply available.



CAUTION

Used batteries

- do not expose to fire,
- do not recharge,
- do not force open. Danger of an explosion!

8 Disposal

8.1 Devices



EC-wide regulations for the disposal of electrical and electronic equipment, which have been defined in the EU Directive 2002/96/EC and in national laws, have been effective since August 2005 and apply to this device. Common household appliances can be disposed of using special collecting and recycling facilities. However, as this device has not been registered for household usage, it must not be disposed of through these means. The device can be returned to your national Dräger Sales Organization for disposal. Please do not hesitate to contact Dräger if you have any further questions on this issue.

8.2 Batteries/Rechargeable batteries



Only dispose of as special waste, in accordance with local waste disposal regulations. Information can be obtained from environmental agencies and from waste disposal companies.

9 Troubleshooting

Symptom	Fault	Remedy
Device switches off automatically.	Batteries discharged.	Replace batteries.
	Device has been left ready for measurement for more than 4 minutes.	Switch device on again.
Device leaves menu mode automatically and shows measuring mode.	Device automatically switches to measuring mode after 120 seconds.	Re-select menu.
Device cannot be switched on.	Batteries discharged.	Replace batteries.
Insufficient volume, Blow interruption.	Subject not blowing hard or evenly enough.	Instruct the subject to blow in the correct manner.
↑ ↑ ↑	Breath alcohol concentration exceeds the measuring limit.	Contact MBRS.
Display shows "Internal System Error".	Device Error. No measuring function possible.	Contact MBRS.
Display shows "Low Temperature Warm up Device Error ID 600".	Device is too cold.	Warm up Device.
Display shows "High Temperature Cool down Device Error ID 600".	Device is too warm.	Cool down Device.

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