



# DRIVESAFE™

BREATH ALCOHOL TESTER



Instruction manual

### **Federal Communications Commission (FCC) Disclaimer**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operations are subject to the following 2 conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operations.

### **Industry Canada**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

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## **SAFETY AND PRECAUTIONS**

### ***CAUTION!***

- Use this tester for its intended purpose only
- Do not blow smoke or fluids into the mouthpiece, as doing so may damage the sensor
- Before testing: Wait 20 minutes after drinking or eating and 3 minutes after smoking
- This tester uses AA alkaline batteries only
- Do not store this tester in extreme heat or in extreme cold temperatures
- Use this tester within the ambient temperature range of 0 to 50 °C
- Turn the tester off before removing the batteries
- Do not disassemble the tester, as this may cause injury and void the warranty
- Keep magnets or mobile devices away from the tester to minimize the potential of electromagnetic interference
- Make certain that the exhaust grid is not covered in any way when a breath test is being performed
- Always use a mouthpiece when blowing into the tester

## **INTRODUCTION**

Thank you for purchasing the DRIVESAFE™ personal breath alcohol tester, a device designed for your safety.

This tester measures breath alcohol concentration (BrAC). In some cases, it may take up to 60 minutes to reach the highest BrAC after the last consumption of alcohol.

Each person reacts uniquely to the consumption of alcohol and may become impaired at a point below the legal limit.

## **DISCLAIMER**

Sale of the DRIVESAFE personal alcohol tester is on the express condition that neither the manufacturer nor the vendor of the device shall be held responsible for the accuracy of any breath alcohol test reading obtained from the device, nor liable for any loss, damage, injury or other consequence resulting, directly or indirectly, from the use thereof.

## GETTING STARTED

The DRIVESAFE personal breath alcohol tester is simple to use. The BrAC readout is provided with a digital display, bar graph and colour indication.

With a one button operation and battery power, this tester is a perfect companion.

The parts and basic features of the tester are illustrated as follows:



To activate a new tester, pull out the plastic tab from the battery compartment.

## **OPERATION**

The DRIVESAFE personal breath alcohol tester is easy to use and understand.

### **ON**

Press the power button once to turn the tester on.

**WAIT** will appear briefly during the start up sequence.

### **READY**

**READY** will appear with a green backlight when the tester is ready for use.

### **TEST**

Insert a new mouthpiece and blow steadily into it for 5 seconds. A tone will sound to indicate a proper flow of breath.

### **ABORT**

A proper sample of breath was not provided. Test again.

### **READING**

To indicate the BrAC range, the display provides a digital reading expressed in mg/L, together with a bar graph and a colour backlight.

### **OFF**

The DRIVESAFE tester will automatically power down after a period of inactivity. To turn it off manually, press the power button twice in quick succession.

## TESTING IN NORMAL CONDITIONS

**NOTE:** *To achieve accurate results, insert a new mouthpiece each time the DRIVESAFE tester is used.*

1. Power on the tester and wait for **READY** to appear.
2. Blow steadily and continuously into the mouthpiece for 5 seconds.

A continuous tone will sound to indicate proper breath flow.

If the breath sample is intermittent, too hard or too soft, several beeps will sound and **ABORT** will appear on the display. Wait for **READY** to appear and try the test again.

3. Stop blowing when the tone ends and a click is heard to indicate that the breath sample is complete.

The DRIVESAFE tester will analyze the sample and display the BrAC result within a few seconds.

**CAUTION!** *Be aware that alcohol is present in many products such as breath spray, mouthwash and medicine, as well as in certain foods and beverages, which may distort the BrAC results.*

**Before testing:** *Wait 20 minutes after eating or drinking and 3 minutes after smoking.*

## TESTING IN A COLD ENVIRONMENT

- When blowing repeatedly in a cold environment (below 10 °C), condensation droplets may form inside the blow channel
- When providing a test, tilt the tester as shown:



- After several breath tests have been performed, blow quickly into the mouthpiece to clear any condensation

***NOTE: Always use a new mouthpiece when blowing into the tester.***

## BATTERY POWER

The DRIVESAFE personal alcohol tester requires 2 AA alkaline batteries for operation.

In production, a plastic tab is inserted between the battery and the electrical connection to conserve battery power during shipment and storage.

To operate the tester for the first time, pull the plastic tab from the battery compartment, which is accessible at the back of the tester.

The tester can perform over 1,000 tests with a set of new batteries.

## BATTERY STRENGTH INDICATOR

A battery strength indicator appears on the bottom right corner of the display when the DRIVESAFE tester is powered on. When the battery strength indicator begins to flash, the batteries require changing.

If the **E01** error message appears on the display, there is insufficient power to continue operation of the tester.

## BATTERY INSTALL

Turn the tester off before removing the batteries. To install new batteries, remove the back battery cover by pressing down on the indent  and slide the cover back.

## CERTIFICATION

The DRIVESAFE personal alcohol tester and other breath alcohol testing products of Alcohol Countermeasure Systems comply with international standards for function and safety.

## **CALIBRATION**

To maintain accuracy, the DRIVESAFE tester requires calibration each year from the first date of use. When calibration is due, **CAL** will appear on the display. If the tester is due for a calibration, contact an authorized Service Centre.

## **WARRANTY**

The DRIVESAFE personal alcohol tester is warranted against defects in materials or workmanship for 1 year from the date of purchase. During the warranty period, Alcohol Countermeasure Systems agrees to replace or repair any unit or part that in its judgement is found to be defective, providing the defect is not due to damage or misuse.

## **SERVICE**

Testers requiring service should be packed securely and shipped prepaid to an authorized Service Centre. Contact Alcohol Countermeasure Systems for more details:

Email: [service@acs-corp.com](mailto:service@acs-corp.com)

Website: [acs-corp.com](http://acs-corp.com)

# TROUBLESHOOTING

IF THE TESTER	THEN
Does not turn on	<ul style="list-style-type: none"><li>• If using it for the first time, remove the small plastic tab from the battery compartment</li><li>• Change the batteries</li></ul>
Is displaying irregular results	<ul style="list-style-type: none"><li>• Change the mouthpiece. Use part number <i>95-000145</i> to order more mouthpieces from ACS</li><li>• Check if <b>CAL</b> is flashing on the display. This indicates that a calibration is due. Though you may continue to use the tester, it is strongly recommended that you send it for calibration immediately</li><li>• If you have eaten or smoked prior to taking the test, swish and swallow cold water to remove any contaminants from the mouth or wait for at least 20 minutes and repeat the test</li></ul>
<b>CAL</b> is flashing on the display	<ul style="list-style-type: none"><li>• The tester is due for a calibration; contact a Service Centre</li><li>• The tester should be calibrated every year from the first date of use</li><li>• <b>CAL</b> may flash, even though the tester may not be due for a calibration, if you remove the batteries without powering off the tester</li></ul>
Has a clogged or dirty mouthpiece	<ul style="list-style-type: none"><li>• Change the mouthpiece</li><li>• Use part number <i>95-000145</i> to order more mouthpieces from ACS</li></ul>
Displays error code <b>E01</b>	<ul style="list-style-type: none"><li>• New batteries are required; change the batteries</li></ul>
Displays these error codes: <b>E02 + E05 to E11</b>	<ul style="list-style-type: none"><li>• These errors may occur during the power up sequence and indicate that the tester requires service. Contact ACS for the return procedure</li></ul>

**E03 + E04**

- The ambient temperature is outside the operating temperature range of 0 to 50 °C
- Ensure that the device is being used within the correct temperature range. If problems persist, contact ACS

**E12**

- The ambient temperature is outside the operating temperature range of 20 to 30 °C during calibration
- Ensure that the device is being calibrated within the correct temperature range. If problems persist, contact ACS

