

Druglizer LE5 Drug Tester User Manual



Disclaimer – External Documents note to reader

The system is intended to be used by a trained professional to provide a first line screen. A positive response will require confirmation by a laboratory-based reference assay like Gas chromatography — Mass Spectrometry (GCMS) or Liquid Chromatography — Mass Spectrometry (LC-MSMS). Neither the manufacturer, the distributor, nor the owner accepts liability or responsibility due to any action or claim arising from the reading produced by this instrument, whether used correctly or incorrectly.



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1 INTRODUCTION

The Druglizer LE5 Drug Testing System is for the rapid oral fluid screening of drugs of abuse. The system incorporates a Druglizer LE5 Drug Tester Cartridge (Druglizer LE5 Cartridge), a Druglizer Oral Fluid Collector and a Druglizer LE5 Drug Tester instrument (Druglizer LE5, purchased separately). The system is intended to be used by a trained professional to provide a first line screen. A positive result displaying 'Unconfirmed' on-screen will require confirmation by a laboratory-based reference assay like Gas chromatography — Mass Spectrometry (GCMS) or Liquid Chromatography Mass Spectrometry (LCMS).

This document must be read carefully before using the Druglizer LE5 Drug Testing System and Certified Operator Training provided by Alcolizer Technology must be completed before using the Druglizer LE5 Drug Testing System. Keep the user manual available for the life of the instrument and ensure operators have access to the user manual at all times. You must always hand the user manual over to the subsequent instrument owner or user.

WARNING

- Only human oral fluid should be used.
- Results on the Druglizer LE5 are preliminary qualitative analytical test results. A
 result displaying 'Unconfirmed' on-screen will require confirmation by a laboratorybased reference assay.
- The presumptive presence of drugs is not a measure of impairment.
- A negative result may not necessary indicate a drug free sample. Drugs may be present below the stated cut off.
- Foods/medicines or preclinical errors may result in false results.

The Druglizer LE5 must be stored at a temperature between -10° C and $+60^{\circ}$ C. Conduct drug screening tests at a temperature between $+15^{\circ}$ C and $+35^{\circ}$ C.

NOTE

This User Manual is applicable to the Druglizer LE5 with main module firmware version RN-1.5.0 and drug test module or later

2 TEST PRINCIPLE

The Druglizer LE5 Drug Testing System is based on a competitive lateral flow immunoassay technique where drug molecules that may be present in the oral fluid sample compete with the same drug attached to the nitrocellulose wicking membrane, for limited binding sites on tagged drug specific antibodies.

The antibodies are tagged with gold colloids to produce a conjugate with a red colour. During testing, an oral fluid sample is absorbed onto the oral fluid collector pad. Chemicals react with the saliva to remove sample interferences and a portion of this sample wicks onto the



conjugate pad where drugs in the sample react with tagged antibody specific for that drug. The sample continues to wick by capillary forces along the nitrocellulose membrane, onto which is attached the same drug of interest. If no drug is present in the oral fluid sample the tagged antibody can bind to the drug bound to the nitrocellulose and a red line is produced.

If drugs are present in the oral fluid sample at concentrations greater than the cut-off concentration, the tagged antibody sites will be saturated with the drug and will not be able to bind to the nitrocellulose bound drug, hence no result is produced. As the drug concentration in the sample increases the colour intensity of the test line decreases. The test strip is not intended to be viewed visually rather it is intended to be interrogated by a meter. The instrument uses a sophisticated algorithm the determine the result.

3 MATERIALS PROVIDED

The Druglizer LE5 is supplied with the following:

- Druglizer LE5 main module.
- Druglizer LE5 drug test module.
- USB cable.
- Battery Chargers (240VAC and 12VDC vehicle).
- Silicon protective cover, cartridge plug and wrist strap.
- Soft shoulder bag or hard plastic carry case (optional).
- Bluetooth printer (optional).

Updated user Manual and Alcoconnect can be downloaded from the https://www.alcolizer.com/software-updates/

Cartridges are not included with the purchase of an instrument. Cartridges are sold separately in cartons of 25 tests.

4 WARNINGS AND PRECAUTIONS

The Druglizer LE5 has been manufactured and tested according to accepted technical principles. However, improper use may still lead to measuring errors and misinterpretations and the precautions should be observed:

- For professional use only.
- Always store instrument with Cartridge plug when not in use.
- Always transport the instrument in the carry case or bag.
- Always check the battery levels before use and recharge the instrument if necessary.



Precautions when working with Druglizer LE5 Cartridges:

- If storing pouches in a fridge, allow the pouch environment to reach room temperature (+15 to +35°C) before use.
- Do not open pouch until just prior to use.
- Do not utilise a pouch if it is damaged or has been tampered with.
- Do not use contents after expiration date.
- Pouch contents are for single use only.
- Take precautions with oral fluid.
- Dispose of as part of your non-recyclable waste and as per local waste requirements.
- DO NOT insert the Oral Fluid Collector into the Cartridge until the Collector indicator changes to an even blue colour that is a consistent from edge to edge.

CAUTION

Failure to follow this warning may result in an "Invalid" test.

While the Druglizer LE5 is a robust instrument, it does contain sensitive instrumentation and should not be subject to rough handling or become submerged in water.

Do not store instrument in direct sunlight or places where extreme temperature conditions can occur.

4.1 Cleaning Procedure

- Operators should use the appropriate personal protective equipment (PPE) when conducting a test – gloves, mask, protective eyewear or full-face mask based on the situation.
- The instrument should be cleaned with a soft cloth and antibacterial spray or antibacterial wipes. It is recommended that the instrument is turned off before cleaning.
- The outside of the instrument can be cleaned by wiping it over with a softmoist cloth followed by a soft dry cloth.
- Screen the screen of the instrument can be cleaned by wiping it over with a soft moist cloth followed by a soft dry cloth.
- **Do not** use alcohol based cleaners.
- **Do not** use harsh cleaning agents, abrasive cleaning pads or chemicals.



5 FUNCTIONAL FEATURES

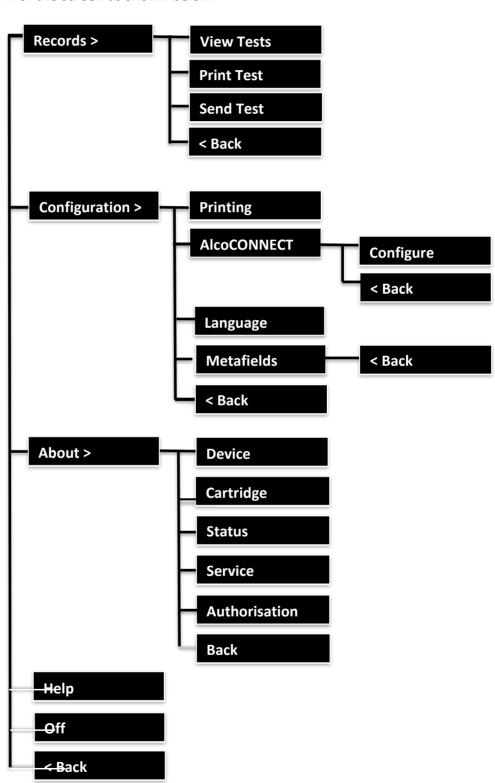




6 MENU AND NAVIGATION

The Up and Down buttons allow access to various sub menus. Operation of both buttons also facilitates access to the *Off* function. The menu structure looks as follows and the navigation can be found on the bottom of the screen as shown below:







6.1 View Tests:

This function shows a list view of all the logged drug test and customer verification records. Each log entry users can see:

- RecordID
- Date and Time test was performed
- Overall result for the record

6.2 Print Test:

This function enables users to print any drug test record from the list of all the logged records. **NB: Bluetooth connection between printer and device must be established prior to using this functionality.**

6.3 Send Test

This function enables users to send any drug test record from the list of all the logged records. NB: Bluetooth connection between AlcoCONNECT mobile app and device must be established prior to using this functionality.

6.4 Printing:

The printing function enables the printing of records by connecting the Druglizer LE5 to a portable printer via Bluetooth connection. The instrument supports the printer "Bixolon SPP-R200". For printing instructions please refer to section 7.

6.5 AlcoCONNECT:

AlcoCONNECT Toolbox Version 1.6 or above is used to download test logs and configure the Druglizer LE5. (For AlcoCONNECT instructions please refer to section 13)

6.6 Language:

This function enables the user to choose the language on instruction among the available options.

- English (Default)
- Bahasa
- Chinese (Simplified)
- Chinese (Traditional)
- French
- German
- Portuguese
- Spanish
- Vietnamese

6.7 Metafields:

- A Configurable customer data stored with the drug test.
- It may be configured once (e.g. customer inventory number),
- Entered once per startup (e.g. operator ID), or once per test (e.g. postcode).
- When enabled the operator is prompted for a code each time the cartridge is inserted.
- The code's initial value is whatever was entered previously.



The code is stored in the drug test log and is visible in AlcoCONNECT logs.

6.8 Device:

Main Module:

- Model number
- Hardware revision
- software version
- serial number

Sample Module:

- Model number
- Software version
- Serial number
- Assembly number

6.9 Cartridge:

When cartridge is inserted into the device the expiry date is visible on the screen. If cartridge has expiry the test will not be performed.

6.10 Status:

This function shows the current status of the cartridge inserted into the device.

6.11 Service

The below information can be seen

- Last service date
- Next service due date
- Days remaining until service

6.12 Help:

This menu provides instructions on the buttons required to perform functions on the device.

7 Printing and Bluetooth

The printing function enables the printing of records by connecting the Druglizer LE5 to a portable printer via Bluetooth connection. The instrument supports the following printer:

Bixolon SPP-R200.

Place the Druglizer LE5 instrument next to the Bluetooth printer and then switch the printer on. In order to establish the connection with the printer via Bluetooth, access to the instrument set up menu is required. Navigate through Configuration to the Printing. Then navigate down to the second screen and toggle to test button to enable Bluetooth.

- Screen 1 displays the status of the bluetooth status.
- Screen 2 allows you to enable/disable Bluetooth.
- Screen 3 allows you to set pin length.
- Screen 4 is used to set up and enter the printer pin.
- Screen 5 will automatically begin searching for your printer.



When the Druglizer LE5 identifies the printer, it will automatically pair with the printer.

Whenever the Druglizer LE5 instrument has a successful connection with the printer, the Bluetooth icon will be blue. If there is no connection to the printer the Bluetooth icon will be grey.



Standard Printers	PIN Digit Length	PINs	Communication Range
Bixolon SPP-R200	4	0000	Up to 10 metres

8 BATTERY CARE AND CHARGING

The Battery Charging Port is located beneath the wrist strap bracket and facilitates connection to the battery chargers included with the instrument.

The Druglizer LE5 is equipped with rechargeable Li-ION batteries. As such it should not be tampered with in anyway. Should any problems occur that are related to the battery, contact your local Alcolizer Technology representative for advice. Only use the battery charger supplied with this instrument by Alcolizer Technology. Use of non Alcolizer Technology supplied battery chargers could damage the instrument and render it inoperative.

The battery status is indicated in the top right of the display. The icon changes to red when the instrument is connected to the power supply and charging. A small amount of power consumption is unavoidable even in standby mode, and this causes the batteries to slowly discharge. Please observe the following instructions for charging of the batteries and storage of the Druglizer LE5 and printer:

- Always check the battery levels before use and recharge the instrument if necessary.
- Avoid a deep discharge of the batteries to keep them working as efficiently as possible.
- Avoid storage at low temperatures (< 0°C).
- Disconnect the Druglizer LE5 and the printer from the power supply before use.

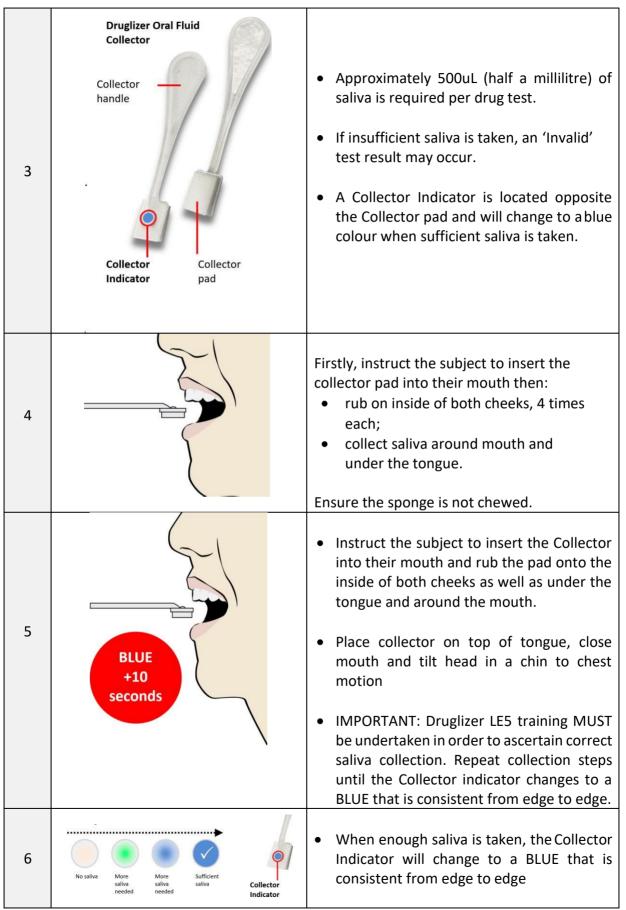
When the battery is fully charged, the battery level indicator on the LCD Colour Graphics Display will display five bars green.



9 PERFORMING A TEST

Step		
1	Perforation line Druglizer Druglizer Oral Fluid Collector	 It is recommended the subject not consume food, beverages or smoke including vaping at least 15 minutes prior to oral fluid (saliva) collection. To encourage saliva production, instruct the subject to press the inside of their cheeks with the tip of their tongue four times. Tear open the pouch containing a Druglizer Cartridge and Druglizer Oral Fluid Collector.
2	Oral Fluid Collector recess Insert Cartridge Oral Fluid Collector recess	 Turn the Druglizer LE5 on and "Insert Cartridge" message will display. Take the Druglizer Cartridge and insert it into the top of the LE5 Drug Reader Module. The flat area should face back while the area with the collector recess should face towards the front. When inserted the screen will display "Insert Collector".

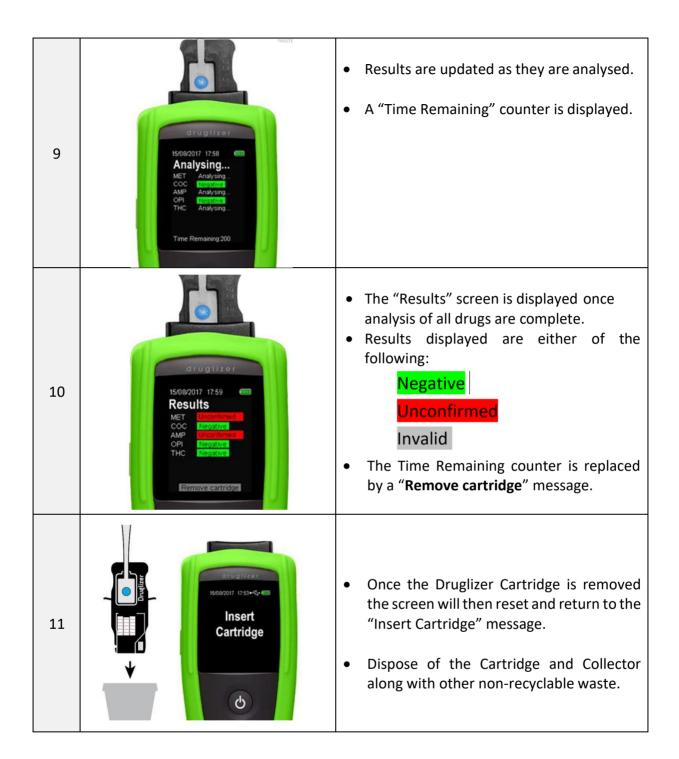






7		 For optimal hygiene – both in a test and for a Druglizer LE5 – ensure the sampled Collector surface is not pooled with excessive saliva.
7	Gently snap backward Jacobson 1987 Bellozit 7151-4-68 Insert Collector	 Position the Collector in an upright position with the Collector pad facing downward. Insert Collector into the Druglizer Cartridge recess and with your thumb on the indicator, gently snap backward into place. Position the LE5 Drug Tester horizontally – preferably on a flat surface. Orientation alerts will help you from moving or tilting the instrument whilst it is analysing a test sample.
8	Analysing MET Analysing. COC Analysing. AMP Analysing. AMP Analysing. The Analysing. Trine Remaining 298	 The Druglizer LE5 will automatically detect the wetted Collector and begin analysing. Typically, drug test analysis will appear from between 15 and 30 seconds. Orientation alerts will help you from moving or tilting the instrument whilst it is analysing.





10 INTERPRETATION OF RESULTS

- INVALID (grey) likely due to insufficient or premature saliva sampling.
- NEGATIVE (green) drug concentration is zero or below the detectable level of the test.
- **UNCONFIRMED** (red) concentration of drug is above detectable level of the test.



11 TEST RECORDS

Records are retained in the instrument and can be downloaded via the AlcoCONNECT software support. It is recommended that records are periodically downloaded and erased from the instrument. Access the records as follows:

- Switch the instrument on.
- Press the Up and Down buttons simultaneously.
 The User Menu will be displayed.
- Navigate to Records menu and select View Tests.
 Record browser will be displayed with the list of all the logged drug test and customer verification records.
- Use the up/down to select the desired record and press the test key. Browser menu will be displayed with an option to view record.
- Select View. Record will be shown as below:



As the instrument automatically stores records, the memory will eventually reach capacity and the oldest record will be automatically overwritten.

Regular downloading of records using AlcoCONNECT is recommended.

12 SERVICE LIFE

12.1 Calibration alerts

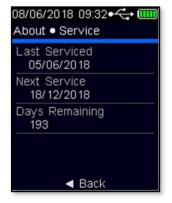
The Druglizer LE5 requires calibration every six months to maintain optimum performance. The instrument will display 'Service Life Pending' warning message 30 days before calibration is required.

The 'Service Life Pending' will be displayed each time the instrument is turned on until calibration is performed.

Press the Test Key to cancel the message and continue testing.

When the 'Service Life Pending' message period has expired, 'Service Life Expired' message is displayed, and the instrument will lock preventing further testing until the instrument is calibrated.

At any time, you can review the service dates.





The user is not authorized to maintain or calibrate the instrument in any way with the exception cleaning of the instrument's housing. Any other form of maintenance must not be carried out by the user. Opening the instrument will render any warranty claims null and void. The instrument is factory-calibrated. The instrument must only be repaired or calibrated by authorized, qualified personnel.

The instrument may be damaged by liquid ingress. Please ensure that water and other liquids are prevented from penetrating the instrument. If any fluid enters the internal parts of the instrument, switch off the instrument immediately and return to authorised service centre.

12.2 Replacing sample module

Rather than returning the instrument to Alcolizer for service, the module can be removed and sent in. This saves money and if the owner details are known and maintained with Alcolizer Technology, arrangements can be made to forward a replacement sample module prior to the calibration being overdue.

Remove and replace the sample module as follows:

- a. Undo the single screw on the back of the main module.
- b. Slide off the out-of-calibration sample module.
- c. Slide on the new sample module.
- d. Do up the single screw on the back of the main module.

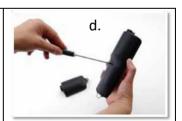
CAUTION

Do not over tighten the sample module securing screw as this will damage the threaded portion. Tighten only enough to prevent the sample module from sliding away from the main module.







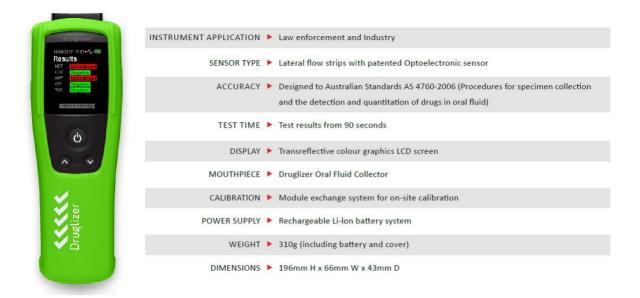


Following the replacement of the sample module, send the out-of-calibration module back to Alcolizer.

The instrument can be returned to Alcolizer Technology for calibration should the owner prefer prior to the number of days warning message period expiring. To arrange calibration, contact Alcolizer Technology. Phone: 1300 789 908; Email: sales@alcolizer.com; or Web: www.alcolizer.com;



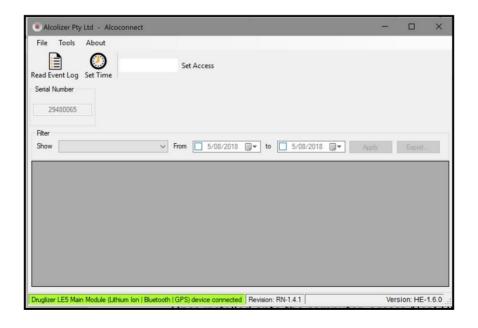
13 TECHNICAL SPECIFICATIONS



14 ALCOCONNECT

AlcoCONNECT is a PC application that can be used to perform certain operations on the Druglizer instrument including downloading the instrument logs. Always use the latest version of the toolbox. Updates to the AlcoCONNECT toolbox can be found at https://www.alcolizer.com/software-updates/

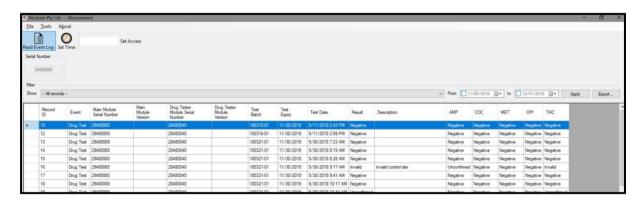
Connect your Druglizer LE5 to the computer via the USB cable, Double click the AlcoCONNECT icon and turn the instrument on. A successful connection between the Druglizer LE5 and the computer will be shown by a green segment on the bottom right of the window.





Once installed onto the computer, access AlcoCONNECT Toolbox allow you functionality as follows (more details in the AlcoCONNECT user guide):

- View Test records.
- Download Test records.
- Set date and time.
- Upgrade Firmware.



14.1 Retrieving Logs

- Open AlcoConnect Toolbox
- Click read event log button



• Records will display in event log



