

ALCOLOCK™ L series

Alcohol Ignition Interlock
Commercial Applications and Public Transportation



ALCOHOL COUNTERMEASURE SYSTEMS

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Introducing the **ALCOLOCK™ L** series

Safety is a significant risk management priority for commercial fleet managers and public transportation professionals.

The ALCOLOCK L series of alcohol interlocks is designed to enhance operational safety, providing vehicle and fleet administrators with the ability to monitor vehicle use and ensure drivers are not operating the vehicle while under the influence of alcohol. Reliable and robust, the ALCOLOCK L series is designed to engineer to withstand vibration, dirt, dust, humidity and extreme temperatures typically found in an automotive environment.

The alcohol interlock ensures safe vehicle operation by interrupting the starting system and preventing vehicle ignition should alcohol be detected in the driver's breath. The alcohol interlock includes a handset for breath sample measurement and an electronic control unit (ECU) for control of the starting of the vehicle engine and data recording for each breath test. All breath test results and any violations are stored and accessible permitting easy data collection and management by fleet administrators.

Unlike other alcohol interlocks, the ALCOLOCK L series is customizable to meet specific alcohol policies, can be integrated with telematic systems and offers a variety of data communication solutions to meet unique fleet management requirements.

The ALCOLOCK L series of alcohol interlocks for commercial use is designed to meet the needs of safety focused organizations, including:

Public transportation

- Coach buses
- School buses and public transit
- Taxis

Goods transportation

- Delivery vehicles
- Fleets/trucking

Heavy equipment

- Construction
- Mining



Configurable settings

The settings of the ALCOLOCK L series of alcohol interlocks may be configured to meet the needs of your fleet operation.

Some configurable features include:

- Start period
- Restart period
- Random test occurrences
- Lockout periods

Safety and operation

- The ALCOLOCK alcohol interlock **only** prevents starting the vehicle engine and does not interfere with the safe operation of the vehicle.
- Installation of the ALCOLOCK device requires connection to the vehicle, 12 or 24 volt power and vehicle ground. The device monitors the ignition and tachometer signals or vehicle movement, and interrupts the starting system. The installation of the interlock does not interfere with the original equipment in the vehicle.

- After an approved breath test, the ALCOLOCK interlock engages a relay to enable the vehicle engine to be started. The starter relay will remain engaged during the operation of the vehicle and for a programmed restart period after the engine is turned off or the vehicle stalls.
- The vehicle engine may be started during the restart period without the need for another breath sample. The restart period may be programmed for a duration of time according to fleet requirements.
- Anti circumvention technology ensures that accepted breath samples come directly from a human subject and are not affected by environmental factors, such as dust, humidity, temperature, etc.
- The configurable device settings are pass-code protected and only accessible to fleet management or authorized personnel.
- Events are logged in both the handset and the ECU enabling remote downloads while protecting the security of the event file and enhancing anti-circumvention measures. Attempts to start the vehicle with the handset disconnected are also recorded in memory.



Benefits of using alcohol interlocks

Alcohol interlocks are often associated with **impaired driving** offenders and compliance monitoring programs; however, many safety focused organizations are incorporating alcohol interlocks into their fleet vehicles to monitor, protect and enhance the safety of their employees, clients, cargo and the general public.

These benefits include:

- Strengthen your corporate image by demonstrating that your organization is safety conscious and committed to providing quality service to its customers
- Ensure the health and safety of employees, clients, cargo and the general public
- Reinforce compliance with your company alcohol policy
- Monitor and ensure drivers have not been drinking before driving no matter the location of the drivers (administrators do not need to be present)
- Eliminate the need for random alcohol testing of vehicle drivers
- Increase road safety by preventing drink driving
- Integrate with fleet management systems to receive real time alerts of critical events
- Reduce costs associated with vehicle accidents and down-time caused by alcohol consumption
- Potentially receive reductions in insurance premiums
- Simple design and ease of use

ALCOLOCK™ L

handset

The ALCOLOCK L series handset may be connected with each of the variant electronic control units (ECUs). Important features of the handset include:

Dual sensing technology

Breath alcohol analysis is conducted by two independent electrochemical sensors to enhance reliability and accuracy of the measurement.

Anti-circumvention

Breath signature technology ensures that accepted breath samples come directly from a human subject and have not been filtered or altered before the alcohol sensor performs the analysis.

Dual event logging

Events are logged in both the handset and the electronic control unit (ECU) enabling remote downloads while protecting the security of the event log file and enhancing anti-circumvention measures.



Sensor

Dual, electrochemical sensor



Specificity

Alcohol only, no response to ketones or hydrocarbon



Range of measurement

0 to 500 mg/dL



Analysis time

5 to 15 seconds



Recycle time

5 to 10 seconds



Accuracy

±5 at 20 mg/dL



Display

Colour OLED 43 mm x 30 mm



Operating temperature

-40 °C to +85 °C



Operating voltage

12 or 24 volt DC



Calibration

ALCOSIM™ breath alcohol simulator or compressed gas standard



Dimensions

140 mm x 50 mm x 25 mm



Weight

105 grams



Certification

The ALCOLOCK L device meets or exceeds the Australian, Canadian, European (CENELEC) and NHTSA 2013 standards for alcohol interlocks



ALCOLOCK™ L series

ECU options

Integration with third party telematic devices

Using R232 or CAN protocol, ECU communicates with telematic devices and exchanges selected data.

Location based services

GPS

Events are recorded in memory with time, date and optional GPS coordinates to enhance compliance monitoring and to deter circumvention.

Wireless data transmission

Wi-Fi

Event log data is automatically transmitted from the ECU to ACS secure data center hosting AlcoFleet application software for up-to-date program management of client and vehicle data when in range of an authorized Wi-Fi point.

GPRS

Event log data is automatically transmitted from the ECU to ACS secure data center hosting AlcoFleet application software for up-to-date program management of client and vehicle data when in range of the cellular network.

Data transfer protocol may be set to either real-time or programmed frequency (e.g., daily).

Bluetooth®

Event log data is automatically transmitted from the ECU to ACS secure data center hosting AlcoFleet application software for up-to-date program management of client and vehicle data when in range of a Bluetooth enabled PC (e.g., 10 meters).





ALCOLOCK™ LC

Wi-Fi

The ALCOLOCK LC commercial interlock with Wi-Fi communications is directed to fleet operations where vehicles return to a central fleet garage or base of operations on a frequent basis. This base station is fitted with a Wi-Fi waypoint to enable a 100 meter signal range.

When vehicles fitted with the ALCOLOCK LC Wi-Fi alcohol interlock come into range of the fleet base station, the event log file will be automatically and securely transmitted to ACS servers to be viewed on AlcoFleet™ web based data management application.

This process does not require intervention of the operator and ensures effective data management. Only authenticated personnel may view the data.





ALCOLOCK™ L

GPRS

The ALCOLOCK L commercial interlock with GPRS communications is directed to fleet operations where vehicles do not return to a central fleet garage or base of operations on a regular basis or where fleet managers require real time reporting of event log data, especially positive BrAC test results, system over-ride, or other violations.

The frequency of data transmission may be configured to selected times of the day and on the occurrence of any violation.

For vehicles fitted with the ALCOLOCK L GPRS alcohol interlock, the event log file will be automatically and securely transmitted to ACS servers to be viewed on AlcoFleet web based data management application.

This process does not require intervention of the operator to ensure effective data management. Only authenticated fleet personnel may view the data.





ALCOLOCK™ LT

The ALCOLOCK LT is the smallest, full-featured alcohol interlock that is directed to light duty commercial operations (delivery vans or taxi fleets) where space limitations are a consideration.

Despite its small size, the ALCOLOCK LT device maintains high standards of robust construction and reliability.

The LT model may also interconnect with the Focus camera and integrate with telematic systems for fleet management.





ALCOLOCK™ L Connect



The ALCOLOCK L Connect is a handset only solution for integration of an alcohol interlock function into telematic systems or taxi meters where driver monitoring is preferred rather than blocking of the vehicle starting mechanism. The L Connect handset may also connect with vehicle management systems that control the starting and movement of the vehicle.

The L Connect handset obtains power from the vehicle controller and will communicate via CAN Bus or RS-232 protocol. All test results are recorded in the memory of the handset with date and time.

The L Connect handset does not interfere with the operation of the vehicle, it simply responds to the commands from the vehicle controller to provide BrAC test results.

ALCOLOCK™ L series

system options

Telematics integration

Fleet management of commercial vehicles is reliant upon telematic systems to monitor and report on vehicle and driver behaviour in real-time. The L series alcohol interlock is designed to integrate with telematic systems to enable fleet managers to monitor the sobriety of drivers.



The L series may integrate with telematic systems through wired or wireless means. It may communicate through CAN Bus or RS-232 protocol in a wired configuration or via Bluetooth protocol in a wireless configuration.

In the basic configuration, the L series alcohol interlock will provide standard messages for monitoring driver and interlock function. In the expanded configuration the L series ECU will provide a full event log download through the telematics connection to ACS secure server for viewing on the AlcoFleet data management application.

Data management

Event log data may be retrieved from the L series devices through wired or wireless means according to the model variant of the ECU. The BrAC test results and vehicle data, including camera images are available online to fleet managers via a secure web access to AlcoFleet proprietary application software. Notifications, violations or exception reporting may be sent via email or SMS.

AlcoFleet may be used with any operating system or browser on a PC, tablet or smart phone for ease of access. It enables fleet managers to set up roll-based access to designated personnel within the organization, and to enrol vehicles, change parameter settings, view transactions for oversight of the fleet.

Focus™ camera

The Focus camera is a small device that is mounted on the windshield nearest to the A-pillar and does not impede the view of the driver. It interconnects with each of the L series ECUs and captures images of the driver for specified events such as breath samples and violations.

The images are stored in the flash memory of the camera and may be transferred securely to ACS servers via wired or wireless means. The images may be viewed online through AlcoFleet in association with the vehicle file and the event occurrence.



Available through:



Alcohol Countermeasure Systems

60 International Boulevard
Toronto, Ontario M9W 6J2 CANADA

+1 416 619 3500

acs-corp.com

Designed in Canada by

Alcohol Countermeasure Systems Corp



Warranty

All ACS alcohol ignition interlocks are warranted to be free from defects in workmanship and material for one year from the date of purchase. Only qualified technicians should perform maintenance on any alcohol ignition interlock.

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