# ALCOLOCK™ LR

Alcohol Ignition Interlock
Compliance Programs


ALCOLOCK


ALCOLOCK™
Ready for test
ALCOLOCK™ LR
12/24V
ACS
ALL1E1K112000008
CANADA

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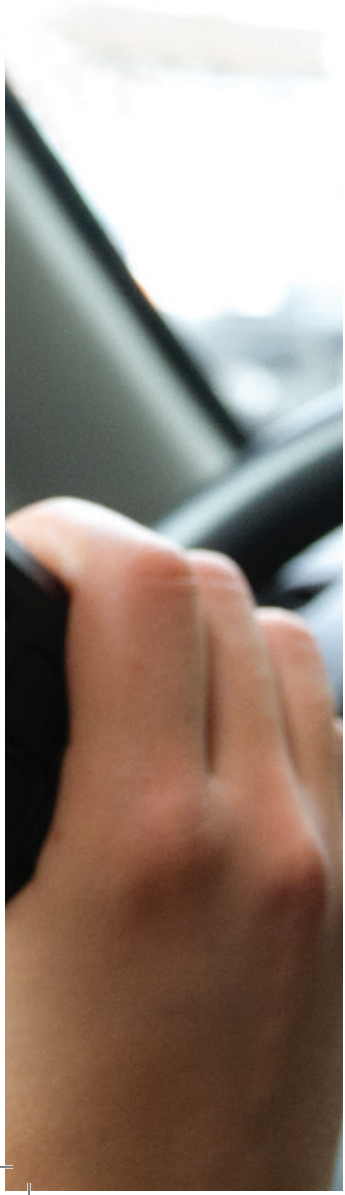
# ALCOLOCK™ LR



The ALCOLOCK LR alcohol interlock for compliance monitoring is designed to be the most technologically comprehensive product to meet the present and future requirements of jurisdictions for drink driving remediation and driver licence reinstatement programs.

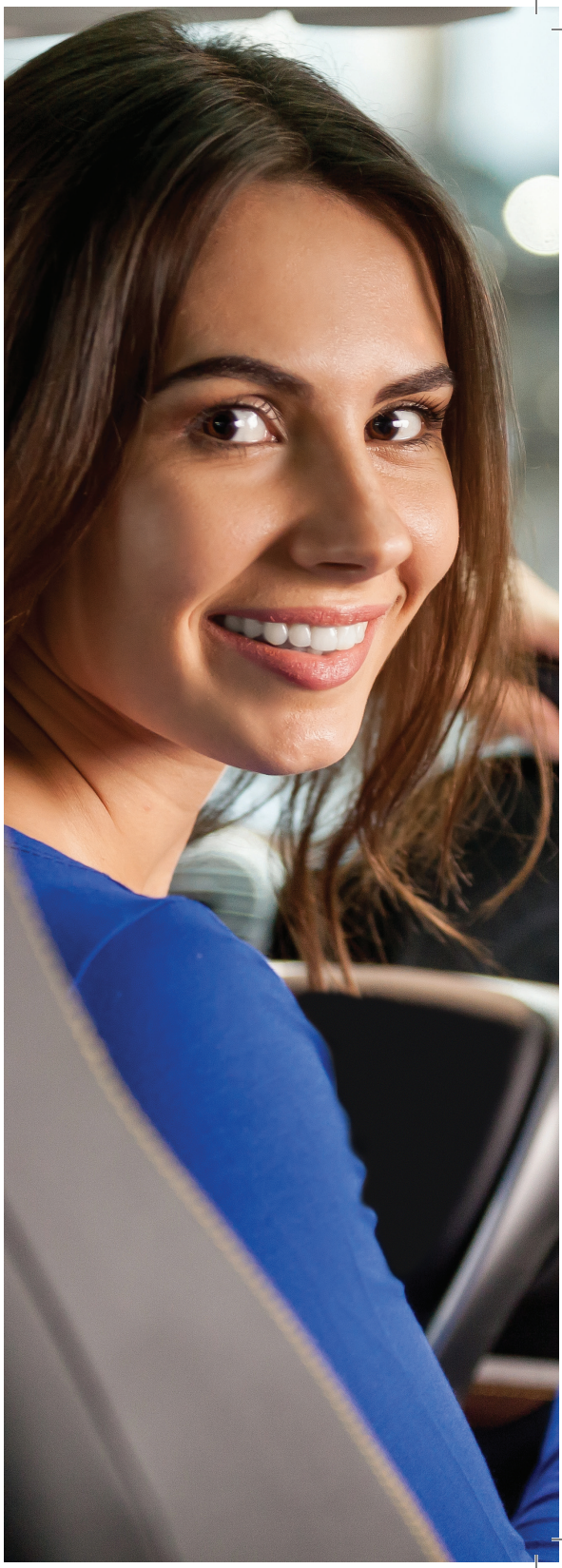
The ALCOLOCK LR includes both a handset (HS) and an electronic control unit (ECU) that is electrically connected to the vehicle power and control systems together with accessory devices that provide optional features and functions as required by the jurisdictions.

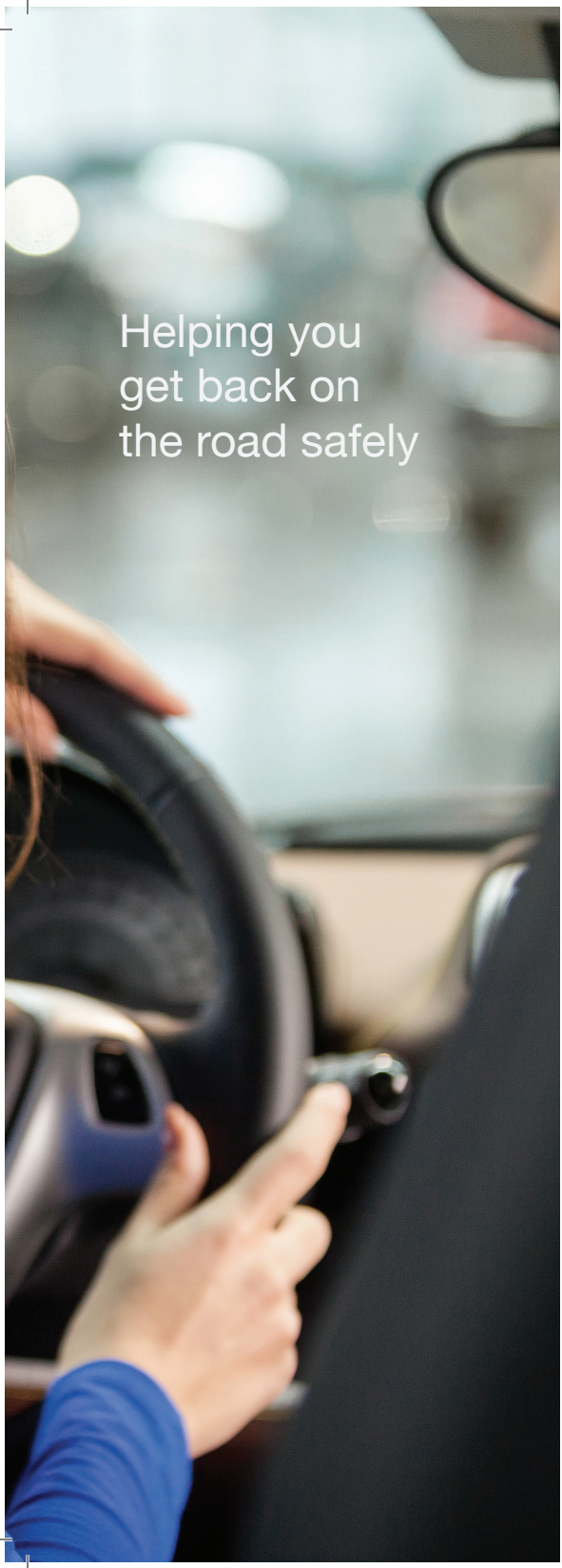
The ALCOLOCK LR prevents a vehicle engine from being started unless the driver provides an accepted breath sample with an alcohol concentration (BrAC) below the pre-set limit.

The ALCOLOCK LR device controls the operation of the vehicle and records data of its use and of the breath samples provided.

# Safety

- The ALCOLOCK LR alcohol interlock only prevents starting of the vehicle engine and does not interfere with the safe operation of the vehicle.
- Installation of the ALCOLOCK LR device requires connection to the vehicle to +12 or +24 volt power and vehicle ground; monitoring of the ignition and tachometer signals, and interruption of the starter system.
- After presenting a breath sample with a BrAC below the pre-set limit, the ALCOLOCK LR device will engage 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 ignition is turned off. 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 several minutes according to jurisdictional requirements.






# Program Compliance

The ALCOLOCK LR alcohol interlock settings may be customized according to jurisdictional requirement.

Some of the features that may be configured include:

- Alcohol set-point
- Start period
- Restart period
- Running or standing retest
- Random or fixed retest times
- Flexible reporting periods
- Violation settings
- Exception reporting via text or email
- Lockout periods for non-compliance
- Custom client configuration settings
- Integration with driver licence database

# ALCOLOCK™ LR handset

The ALCOLOCK LR handset is common to all ECU variants. Two important features of the handset are:

## Dual sensing technology

Breath alcohol analysis is conducted by two independent electrochemical sensors to enhance the 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 analysis.

**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 4.3 cm x 3.3 cm

**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 LR device meets or exceeds the Australian, Canadian, European (CENELEC) and US DOT (NHTSA 2013) norms for alcohol interlocks for compliance monitoring.


Safe and secure
client monitoring

# ALCOLOCK™ LR
# ECU

The ALCOLOCK LR handset may be connected with each of the variant electronic control units (ECUs). These variants provide optional data handling features that respond to the jurisdictional requirements.

## Dual event logging

Events are logged in both the handset and ECU, protecting the security of the event log file and enhancing anti-circumvention measures. Attempts to tamper with the ECU or its installation into the vehicle may still be detected and recorded in the memory of the ECU with the handset disconnected.

## Secure data handling

Event log files and communications are protected with AES 128 bit encryption-standard for security of the memory and the transmission of data files. Flash memory preserves the event log when the vehicle battery is disconnected.

## Data access

Event log data may be retrieved from the ALCOLOCK LR device through wired or wireless means according to the model variant of the ECU. Client and vehicle data are available online to jurisdictional authorities via a secure web access to AlcoTrack™ proprietary application software. Notifications of violations or exception reporting may be sent via email or SMS.



ALCOLOCK LR


ALCOLOCK LR
with GPS + Wi-Fi

# ALCOLOCK™ LR
# ECU options

## Location based services

*GPS*

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

| OPTIONS | | | |
|---|---|---|---|
| | GPS | Wi-Fi | GPRS |
| LR | | | |
| LR with GPS + WiFi | X | X | |
| LR max | X | | X |

ALCOLOCK LR
with GPS and GPRS

## Wireless data transmission

*Wi-Fi*

Event log data is automatically transmitted from the ECU to ACS secure data centre hosting AlcoTrack suite of applications for up-to-date program management of client and vehicle data.

*GPRS*

Event log data is automatically transmitted from the ECU via GPRS (cellular) network to an ACS secure data centre hosting AlcoTrack suite of applications for the most up-to-date program management of client and vehicle data.

Data transfer protocols can be sent either real-time or at a programmed frequency (e.g. daily).

# ALCOLOCK™ LR accessories

## Focus™ camera

The FOCUS camera is a small unobtrusive device that is mounted on the windshield nearest to the A-pillar and does not impede the view of the driver. It interconnects with the ALCOLOCK LR ECU and records 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 AlcoTrack in association with the Client file and the event occurrence.

## OBD II cable

The ALCOLOCK LR ECU is designed to interconnect with the vehicle OBD II port to receive vehicle data such as engine speed (tachometer) and vehicle speed (motion).

This direct connection to the vehicle diagnostic port increases the anti-circumvention capabilities of the ALCOLOCK LR device and provides additional monitoring events for compliance review.

Available through:

ALCOLOCK

**ALCOLOCK Canada**

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Toronto, Ontario  M9W 6J2  CANADA

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alcolock.ca

**Designed in Canada by**
Alcohol Countermeasure Systems Corp

TÜV MANAGEMENT SERVICE ISO 9001
TÜV MANAGEMENT SERVICE ISO 14001
TÜV SÜD ISO/TS 16949

ACCREDITED CERT #4169.01 ISO/IEC 17025
ACCREDITED CERT #4169.02 ISO 17034

**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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