

ALCOLOCK™ WR2

ALCOHOL INTERLOCK



Saskatchewan
Instruction and compliance manual

Alcohol Countermeasure Systems Corp

60 International Boulevard
Toronto, Ontario M9W 6J2 CANADA

T +1 416 619 3500

F +1 416 619 3501

info@acs-corp.com

acs-corp.com

Toll-free number: 1-800-769-3312

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SAFETY AND PRECAUTIONS

GENERAL

The ALCOLOCK WR2 alcohol interlock is a device that is designed for easy and safe operation. The following precautions should be followed:

- Do not open the sampling head or the control module. Doing so will void the warranty and potentially damage the components within
- Avoid exposing the unit to direct sunlight for extended periods of time
- If any liquid is spilled on the unit, remove all excess fluid with a cloth and allow all components to dry thoroughly. If it is believed that there is excessive water damage, do not turn the unit on. Contact your dealer
- Turn off radio frequency (RF) transmitting devices (such as cell phones) while using the ALCOLOCK WR2. Radio frequencies may cause the interlock to abort a test

WARRANTY

All ACS products are warranted to be free of defects in workmanship and materials for a period of 1 year from the date of shipment.

ACS agrees to replace or repair any defective ALCOLOCK WR2 device, provided the defect was not caused by misuse or mishandling.

Any ALCOLOCK WR2 being returned for warranty repair must be properly packaged and shipped prepaid to the authorized dealer's facility.

MAINTENANCE

The ALCOLOCK WR2 is made for field use, making it susceptible to dirt and debris. The unit should be cleaned with a damp cloth and mild soap. Do not use abrasive cleaners or solvents.

INTRODUCTION

WHAT IS AN ALCOHOL INTERLOCK?

An alcohol interlock is an in-vehicle breath alcohol testing device. It prevents a vehicle from starting if it detects that a driver's breath alcohol concentration (BrAC) is over a preset limit. It is designed to fit inside the vehicle, near the driver's seat and connects directly to the vehicle's ignition system. This unit consists of a control module, a sampling head. The control module enables or disables the ignition of the engine and stores the control module's settings.

HOW DOES IT WORK?

The ALCOLOCK WR2 uses the same alcohol sensing technology used by police in roadside screening. A special alcohol-sensitive cell detects the amount of alcohol in breath. Breath alcohol concentration (BrAC) is directly proportional to the amount of alcohol in the blood. The blood alcohol concentration limit is customizable and can be set to any specific jurisdictional requirement.

INSTALLATION

The ALCOLOCK WR2 is to be installed by a qualified installer in accordance with provincial regulations. An unqualified installation may invalidate the type approval of the vehicle.

MORE INFORMATION

ALCOHOL INFLUENCE ON TESTING

Drinking alcohol and eating foods containing alcohol will cause a failed breath test.

Some other factors that may affect a test (because they may contain or produce residual alcohol in the mouth) are: medicines, drops, smoking, using mouthwash or mouth spray.

Rinsing out the mouth with water after using mouthwash or mouth spray will remove any alcohol content.

Do not eat, smoke or drink for at least 10 minutes before taking a breath test.

Additionally, do not spray any air fresheners, disinfectants, cologne or perfume in the vehicle prior to a breath test, as these can also contain alcohol.

NOTE: The above mentioned list of factors that may affect a breath test is not exhaustive. There are additional items that may affect the results of a breath test. Follow this guide carefully to avoid incorrect results.

OPERATING TEMPERATURE

The maximum ambient operational temperature is between -40 and 85 °C.

NOTE: Depending on the ambient temperature, warm up may take approximately 30 seconds at 20 °C and up to 5 minutes at 0 °C or below.

USING THE ALCOLOCK WR2

STARTING THE ENGINE

- 1. Push the power button on control module to power up the WR2. Do not attempt a test until the unit has completed the power up cycle, which may take up to 5 minutes in cold weather.

NOTE: Do not turn on the ignition key, otherwise the display will indicate KEY OFF. 6 minutes of KEY OFF will cause an early recall.

- 2. Wait until **READY** is displayed on the control module before providing a breath sample. Ensure that you have not ingested anything containing alcohol or rinsed with mouthwash for 15 minutes prior to providing a breath sample.
- 3. Insert a new mouthpiece. Using a new mouthpiece practices good hygiene and ensures a good breath sample.

NOTE: Do not eat, drink or smoke anything for at least 10 minutes before taking a test. Drinking or smoking could contaminate the breath sample.

- 4. Blow into the mouthpiece with sufficient and consistent pressure. A tone can be heard to indicate proper breath flow and “-----” is displayed. Continue blowing for 3 seconds, then blow and hum simultaneously for another 2 seconds until the tone ends.

The control module will display **Wait...** as it analyzes the breath sample. Do not turn the ignition key on when the control module displays **Wait...** as doing so might result in an abort of the test. The breath test result will be displayed within 10 seconds and can be interpreted with the chart below:

IF THE CONTROL MODULE...	YOU SHOULD...
Displays a Pass LED and displays StartCar	Start the engine and drive safely
Displays a Fail LED and displays Lock Out 5 Minutes	Wait 5 minutes before providing another breath sample
Displays a Fail LED and displays Lock Out 15 Minutes	Wait 15 minutes before providing another breath sample
Displays a Fail LED and displays PERMANENT LOCK OUT	Contact your local service centre and DO NOT attempt another breath test

NOTE: Turning the key to the on position without starting the vehicle for 3 minutes will cause an early recall.

A Pass BAC is between 0 and .019 mg% and a Fail BAC is over .020 mg% (the legal limit is .04 mg%).

If the control module displays a Fail LED, the vehicle cannot be started and the driver will be prevented from attempting another test for 5 minutes. If a second Fail BAC test were to follow, the lockout period would be 15 minutes.

RUNNING RETESTS

Additional breath samples will be required at random intervals of between 5 to 15 minutes for the first retest to ensure that the driver has not consumed alcohol since the engine started.

NOTE: If a retest is not taken within 3 minutes, then the control module will display Time / Lapse and the vehicle's horn will sound. Failing to provide another breath sample after another 3 minutes, or the vehicle is not shut off and the power button pressed, constitutes a program violation. The interlock service date will be automatically changed to 7 days. The vehicle must be taken to a service centre for maintenance at an additional expense.

1. Wait until the unit beeps and displays **Retest**.

Do not provide a breath sample while the vehicle is in motion. The ALCOLOCK WR2 allows 3 minutes for the driver to stop in a safe location to provide a breath sample.

The retest must be conducted within 3 minutes of the retest request indication.

2. Blow into the mouthpiece with constant and consistent pressure. A tone can be heard to indicate proper breath flow. Continue blowing for 3 seconds, then blow and hum simultaneously for another 2 seconds until the tone ends.

The control module will display **Wait...** as it analyzes the breath sample. 1 of 2 possible outcomes may occur:

- a. A Pass LED is displayed. You may continue driving safely.
- b. A Fail LED is displayed. The driver has 3 minutes to pull over and then press the power button on the control module to acknowledge the failed breath test. **Lock Out 5 Minutes** will be displayed. Wait 5 minutes before providing another breath sample.

WARNING! Ensure that there are no traces of alcohol in your mouth before providing another breath sample. Another failed breath test will result in a Lock Out 15 Minutes and then a subsequent PERMANENT LOCK OUT after that.

If a retest is not taken within 3 minutes of the initial indication, the unit will enter a Time Lapse Fail and display **Time Lapse** with an alarm horn.

If the test is not taken within a further 3 minutes, or the vehicle is not shut off and the power button pressed, then the service reminder will be reset to 7 days and the vehicle will have to be brought in for service at the participant's additional expense. This is a program violation.

START VIOLATION

If the vehicle's engine is started by hot wiring or push starting, then the control module will display **START VIOLATION**. This constitutes a program violation. The service reminder will be automatically reset to 5 days. The vehicle must be taken to a service centre for maintenance at an additional expense.

PROGRAM VIOLATION

Disconnecting the vehicle's battery for more than 15 minutes is considered a program violation. A grace period of 5 minutes is allowed to boost the vehicle's battery. However, 3 instances of a battery being off for more than 5 minutes will result in an early recall. The control module will display **Early / Service 14** and the service reminder will be automatically reset to 7 days. The vehicle must be taken to a service centre for maintenance at an additional expense.

SERVICE DUE

The control module will display **Due Date** 7 days before the service date. If the vehicle has not been serviced within 7 days, then the control module will display **Past Due** and the missed appointment date.

If the vehicle has not been serviced 5 days after the due date, then the control module will display **PERMANENT LOCK OUT** and the vehicle will be permanently immobilized. The vehicle must be taken to a service centre for maintenance at an additional expense.

WARNING! If the owner doesn't contact a service centre after a permanent lockout, then they may be placed in revoked status by the administering authorities.

FEATURES

RESTARTING THE ENGINE

There is a grace period of 3 minutes for the engine to be restarted without providing another breath sample. In case of engine stalls and / or failures, start the car as normal and continue driving safely within the allotted time. Another breath sample may be required if the engine stalls for longer than 3 minutes, but for less than 15 minutes.

NOTE: *Letting the vehicle stall for more than 15 minutes may lead to a program violation.*

WARM UP

The warm up feature allows the vehicle to idle without having to provide a retest. To enable this feature, the vehicle must idle lower than the preset limit set by the service centre.

To activate the warm up feature, press and hold the power button on the control module until **WarmUp** is displayed. A retest will not be required within 30 minutes unless the power button is pressed on the control module, the vehicle idle rises above the specified limit or if the vehicle stalls.

NOTE: *It is the participant's responsibility to ensure that their vehicle idles properly.*

TURNING THE POWER OFF

2 hours after the vehicle engine is switched off, the interlock will automatically power off. The driver can power off the interlock manually by turning off the ignition, waiting 6 seconds and then holding the power button for 6 seconds.

NOTE: *The power lamp will turn off.*

DISCONNECTING THE SAMPLING HEAD

The sampling head must be disconnected from the control module in times of cold weather. Ensure that the sampling head is stored indoors and at room temperature. Storing the sampling head indoors will shorten the warm up cycle of the unit.

Disconnecting the sampling head will cause the unit to shut off automatically after 3 minutes.

WARNING! *Use extreme caution when connecting and disconnecting the sampling head. Forcing it into place may cause internal components to break and / or malfunction.*

EMERGENCY OVERRIDE

WARNING! A driver with an ignition interlock condition on their license is restricted from driving a vehicle that is in an Emergency Override. Only a driver with a non-conditional license can operate the vehicle whilst in an Emergency Override.

The vehicle can be started without a breath sample in emergency situations.

1. To activate the Emergency Override function, turn the ignition key on. **KEY OFF** will be displayed and a beep can be heard.
2. Press and hold the power button on the control module until **EMERGENCY OVERRIDE** is displayed. The vehicle may now be started. When the vehicle starts, the vehicle alarm horn will sound.

NOTE: The vehicle will continue to be in Emergency Override until the vehicle is shut off for more than 60 minutes, or when disabled by the driver.

3. To disable an Emergency Override, turn the ignition key off and press and hold the power button on the control module for 10 seconds.

Once the emergency override has been activated, the service reminder will be reset to 5 days and the vehicle will have to be brought in for service at the participant's additional expense.

DISPLAY MESSAGES

NOTE: The **ALCOLOCK WR2** may not accept a breath sample and could display error messages instead. To minimize errors, ensure that the sampling head is connected properly, the vehicle's battery is in good condition and that mobile phones are not in use during the breath sampling process.

The following is a list of messages (including error messages) that the control module may display:

DISPLAY MESSAGES	DESCRIPTION	ACTION
ABORT 10	Problem with the sampling head.	Contact your local service centre.
ABORT 20	Problem with the sampling head.	Contact your local service centre.
ABORT 30	Problem with the sampling head.	Contact your local service centre.
ABORT 40	Possible problem with the sampling head (1 ABORT 40 per 100 tests is considered normal).	Try the breath test again. Contact your local service centre if this message persists.
ABORT 50	Possible problem with the sampling head (1 ABORT 50 per 100 tests is considered normal).	Try the breath test again. Contact your local service centre if this message persists.
BATTERY / FAULT	The battery voltage (Vcar) is below 8 volts, too low to start the vehicle.	Charge the vehicle battery or get a boost. WARNING! Boosting the vehicle with more than 18 volts may damage the unit.
Blow / Harder	Blowing pressure is below the minimum threshold at any time during the 5 second sampling period.	Blow harder, especially while humming and ensure that mobile phones are off.
Blow / Softer	Blowing pressure is above the maximum threshold at any time during the 5 second sampling period.	Blow softer during the breath sample and ensure that mobile phones are off.

Blow / then Hum	Hum tone detected within the first 2 seconds of the breath sample.	Blow for the first 3 seconds before humming.
Due Date	Reminder of a scheduled service appointment. This message is displayed 7 days prior to the scheduled appointment.	Take your vehicle to a service centre on the date displayed.
Early / Service 1	<p>An early service reminder for 7 days, initiated because of a time lapse fail of over 3 minutes.</p> <p>The date shown on the control module is the rescheduled service date.</p>	Contact your local service centre to schedule a new appointment.
Early / Service 2	<p>An early service reminder for 7 days, initiated because of a PullOver time lapse fail of over 3 minutes.</p> <p>The date shown on the control module is the re-scheduled service date.</p>	Contact your local service centre to schedule a new appointment.
Early / Service 3 – 7	<p>An early service reminder for 7 days, initiated because of a detected service matter.</p> <p>The date shown on the control module is the rescheduled service date.</p>	Contact your local service centre to schedule a new appointment.
Early / Service 8	<p>A service reminder for 5 days, initiated because of the use of the Emergency Override function.</p> <p>The date shown on the control module is the day of the detected violation.</p>	Contact your local service centre to schedule a new appointment.
Early / Service 9, 10 and 12	<p>A service reminder for 7 days, initiated because of a Fail BAC program violation.</p> <p>The date shown on the control module is the day of the detected violation.</p>	Contact your local service centre to schedule a new appointment.

Early / Service 11	A service reminder for 7 days, initiated because of 5 lockouts within a 30 day period.	Contact your local service centre to schedule a new appointment.
Early / Service 14	A service reminder for 7 days, initiated because of multiple power disconnects. The date shown on the control module is the day of the detected violation.	Contact your local service centre to schedule a new appointment.
Early / Service 15	A service reminder for 5 days, initiated by a START VIOLATION . The date shown on the control module is the day of the detected violation.	Contact your local service centre to schedule a new appointment.
Early / Service 16	Service Reminder for 7 days with display message, initiated because of 2 consecutive 15 minute lockouts.	Contact your local service centre to schedule a new appointment.
EMERGENCY OVERRIDE	The WR2 is in Emergency Override mode.	A driver with a non-conditional license must drive the vehicle to a safe location and then turn the engine off. Contact your local service centre immediately.
Engine Off	Occurs after the ignition key is turned off. A 3 minute stall protect timer begins in which the vehicle may be started without the need of an additional breath sample.	Press the power button on the control module and wait for the unit to display READY before providing a breath sample.
Head / Fault	The sampling head requires service.	Contact your local service centre to schedule a new appointment.
Hi Batt	The battery voltage (Vcar) is above 16.0 volts, indicating a possible charging problem.	Have your vehicle serviced at a local garage. Notify your local service centre before having your vehicle serviced.

HUM	No hum tone detected during the 4th and 5th seconds of the breath sample.	Hum while blowing after the first 3 seconds of the breath sample.
KEY FAULT then Test / Required	<p>If a breath sample is not provided and the Ignition On signal is detected for 3 minutes, then the alarm horn will sound and display KEY FAULT.</p> <p>The vehicle will have to be brought into a service centre for an early recall.</p>	Ensure that the ignition key is off before providing a breath test.
Lock Out 5 Minutes	<p>Occurs after a failed breath test (or a failed retest). A Fail LED light flashes on the control module and displays Lock Out 5 Minutes.</p> <p>The vehicle may not be started for 5 minutes.</p>	Wait until the lock out period ends (5 minutes) before providing another breath sample.
Lock Out 15 Minutes	<p>Occurs after a second consecutive failed breath test (or retest). A Fail LED light flashes on the control module and displays Lock Out 15 Minutes.</p> <p>The vehicle may not be started for 15 minutes.</p>	Wait until the lock out period ends (15 minutes) before providing another breath sample.
Low Batt	The battery voltage (Vcar) is below 10.4 volts, indicating a possible battery or charging problem.	<p>Have your vehicle checked at a local garage.</p> <p>Notify your local service centre before having your vehicle serviced.</p>
Not Connected	The sampling head is partially or completely unplugged from the control module.	Plug the sampling head into the control module.
Past Due / Date	This message is displayed after a missed scheduled service date. The vehicle must be taken to your local service centre within the 5 day grace period, ending on the date displayed on the control module.	Contact your local service centre to schedule a new appointment.

PERMANENT LOCK OUT	The vehicle is permanently immobilized. It is the result of failing to report to a service appointment after the 5 day grace period has expired.	Contact your local service centre to schedule a new appointment. The vehicle must be towed to the service centre at the owner's expense.
Press / Button	Occurs 6 seconds after the ignition switch has been turned off following a Time / Lapse or a PullOver . A breath sample cannot be supplied until the power button has been pressed on the control module and READY is displayed.	Turn the ignition key off, wait 6 seconds, then press the power button on the control module. Provide a breath sample after READY is displayed.
PullOver	Occurs when a Fail BAC result is recorded on a retest. The driver has 3 minutes to pull over in a safe location, park and turn off the vehicle before the alarm horn sounds.	Pull over, park and turn off the vehicle in a safe location. Wait 6 seconds for Press / Button to appear on the control module. Press the power button to engage a lock out.
READY	The unit is ready to collect a breath sample in order to start the engine.	Provide a breath sample into the sampling head of the unit.
Relay / Fault	There is a problem with the control module.	Contact your local service centre.
Retest	A double alarm horn sounds and Retest is displayed. The driver has 3 minutes to produce another breath sample.	Conduct the retest as required.
Running!	An accepted breath test with an alcohol concentration below the limit has been provided and the vehicle engine has been started.	Drive safely.

StartCar	<p>A breath test has been passed. You may start the vehicle.</p> <p>NOTE: Turning the ignition key on for 3 minutes without starting the engine will cause an early recall.</p>	Start the engine and drive safely.
START VIOLATION then Test / Required	<p>If a breath sample is not provided but the vehicle is started (by hot wiring or push starting) a start violation is recorded and an immediate (5 day) recall will commence.</p> <p>START VIOLATION will be displayed for 30 seconds while a speaker tone sounds.</p> <p>Test / Required will be displayed and the unit will go through the retest procedures.</p>	Conduct the breath test as requested and contact your local service centre immediately.
Time / Lapse	Appears when a retest request isn't completed within 3 minutes. The alarm horn will sound until the driver pulls over in a safe location to provide another breath sample.	Pull over in a safe location and provide another breath sample or turn the ignition key off and press the power button on the control module after Press / Button is displayed.
TryAgain	Improper test condition.	<p>Provide another breath sample and ensure that all mobile phones are off.</p> <p>If the message persists, contact your local service centre.</p>
Unstable	Improper test condition.	<p>Provide another breath sample and ensure that all mobile phones are off.</p> <p>If the message persists, contact your local service centre.</p>

WarmUp	Prevents the unit from requesting a retest for 30 minutes as long as the engine is idling.	Press and hold the power button on the control module until WarmUp is displayed.
Wait...	The unit is analyzing a breath sample.	Wait until the breath sample is analyzed and you are provided with further instructions.
WAIT...	Communication is being re-established with the control module when the sampling head is plugged in.	Wait until READY is displayed before providing a breath sample.
XXXXXXXXXX...	There is a power interruption.	Disconnecting the vehicle battery for more than 15 minutes is a program violation and should not be done without first contacting your local service centre.

MAINTENANCE AND TROUBLESHOOTING

CALIBRATION

Yearly calibration is required to maintain optimum breath test accuracy. The control module displays **Due Date** 7 days before a calibration is due.

TROUBLESHOOTING TABLE

The following table lists basic problems that may occur, along with their solutions. For other problems, contact your dealer.

IF THE WR2...	YOU SHOULD...
Will not turn on	Check the vehicle battery
Displays an error code	Refer to the "Display Messages" section of this manual
Aborts a breath test	Retry the test, or refer to the "Display Messages" section of this manual
Is in PERMANENT LOCKOUT	Contact your local service centre
Requires service	Contact your local service centre

