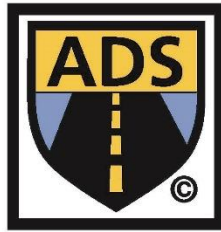


User Manual



Alcohol Detection Systems



YOUR ADS CONTACT INFORMATION

ADS Corporate Office

888-STOPDWI

After Hours Emergencies
(for emergencies only)

503-348-6104

Business Hours

YOUR SERVICE CENTER ADDRESS

Please read and ensure that you (and any other persons that will be driving the vehicle) fully understand this manual before operating a vehicle with the Determinator system installed. Drivers must completely comply and follow its instructions. Failure to do so may require early service or vehicle lock out and could also result in an extension of your IID requirement.

UNDERSTANDING YOUR IID REQUIREMENT

PLEASE READ THIS MANUAL IN IT'S ENTIRETY. SHOULD YOU HAVE QUESTIONS ABOUT YOUR REQUIREMENT PLEASE CONTACT YOUR LOCAL MOTOR VEHICLES DEPARTMENT. PLEASE CONTACT ADS FOR QUESTIONS REGARDING THE USE AND OPERATION OF YOUR DEVICE ONCE YOU HAVE READ THIS MANUAL.

Thank you for choosing Alcohol Detection Systems. This manual covers the operation and use of the ADS Determinator Ignition Interlock Device. You should refer to this manual periodically for questions/issues you may experience during your IID requirement period.



Please read the entire manual it will help you to understand, the entire process! The most important thing to remember is that this unit is used to detect what is on your breath. The unit is **alcohol specific** so the only chemical you need to be concerned with is alcohol. Unfortunately, alcohol is present in some everyday things you may not think of: **Mouthwash, cough syrups, perfumes, colognes, hair spray, and hand sanitizers, etc.**, will have alcohol in them and if you are exposed to them prior to providing a sample you may fail a test. If you fail a startup test, it will result in you waiting for the device to allow you to take a new test. It is highly recommended, if you are exposed to these chemicals, to allow adequate time for your body to purge these chemicals prior to attempting a breath test. If you were to blow a failure during a startup test, the unit will go into a short time out. If this does occur, immediately rinse your mouth with water so that any residual alcohol is washed away. You must then compete a retest as soon as the device will allow (device allows a resample in just 5 minutes).

State law requires that your device be serviced and inspected every 30 days. The date your device is due for service will display on the screen every time you turn your device on (and will count down by one day, every day). **Always be aware of your service due date** and contact your local ADS office to schedule the service on your device. If your device is not serviced in a timely manner, your device will lock out and you will not be able to start your vehicle.

Normally at start up, the device will display the number of days until service (*service due XX days*) and will also display your next service date. Always be aware of the date displayed. This date is the date in which your device must be serviced/inspected and will begin at either 30 days from the date of your installation or last service date. Contact your ADS office to schedule service for your device. If you do not return for service by your service due date or if a violation is recorded on the device (or a series of violations), the number of days on your device will display "*lock due 7 days*". You must return your device for service before those days expire. Failure to do so will result in a complete lock out of your device and you will be unable to start your vehicle.

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BEFORE STARTING THE VEHICLE, MAKE SURE YOUR HEATER/AC BLOWER IS TURNED OFF!

DEVICE OPERATION – QUICK START SUMMARY

To begin, turn your key to the on position to power the device. The unit will activate and say “*Determinator please wait* and is preparing for your sample. The device must be held upright and as close to level as possible. The device has a built-in instrument which will not allow a test if it is too far to one side or the other, ensuring a proper photo of the user.

Obstruction of the Camera by any means is prohibited and will result in CONSEQUENCES TO YOUR IID REQUIREMENT AND WILL BE REPORTED TO THE GOVERNING AGENCY ON YOUR CASE.

Once the unit is ready for your sample, the unit will say “please provide sample”. You will then blow hard into the device for about 1 second. The device will beep, you will then immediately suck back, and then the device will beep again. Then you will blow out steady for a final blow (not as hard as the first sample, but not too soft either). This breath will take approximately 5-8 seconds. After a successful completion of a startup test you may start the vehicle for up to 2 minutes. Always wait for the device to say “YOU MAY START THE VEHICLE”. If the device verbally says INVALID SAMPLE, the digital display will scroll the reason for the error in the window. Most common errors are “Too high”, “Too low”, or “Not in time”. Retry and adjust your breath sample based on the reason listed across the screen. Other reasons for invalid sample can be found later in this manual.

Once you start the vehicle the unit will randomly test (rolling retest or “RRT”) you while you drive. When calling for a retest, the unit will alert with an audible tone and the unit will say “*please provide sample*”. **You have 3 minutes to provide the sample!** The unit will once again analyze the sample and give you “Rolling Retest Passed”. If for some reason you were to fail, you will be required to retest until you provide a passing test. This result, however, could result in a 5-day lockout as discussed previously. The most common cause of lockouts is not from failing tests, it is from not completing the rolling retest in time or accurately. Missing a rolling retest can result in an extension of your IID requirement.

Never leave your vehicle running unattended. Not only is it against Oregon law, but it could also result in missing a retest request as the device operates a schedule based on when your vehicle is running – NOT when you’re physically driving it. Retests are required and missing one can extend your requirement.

Always ensure that you understand the use of the device prior to operating your vehicle.

DETERMINATOR DETAILED OPERATING INSTRUCTIONS

1. ADS *Determinator* System Overview

Alcohol Detection Systems' *Determinator* is a breath alcohol ignition interlock device (BAIID) designed to prevent a driver from starting a vehicle when his breath alcohol content (BRAC) is above a defined set point. It is certified per NHTSA (National Highway Traffic Safety Administration) specifications as published in Federal Register May 8th, 2013.

Additionally, the device has been certified and approved for use in the State of Oregon.

2. System Components



2.1. *Determinator Hand Held*

The *Hand Held* is the removable portion of the *Determinator* system into which a user provides a breath sample. Display messages and voice prompts are provided by the *Hand Held* to instruct a user.

2.2. *Determinator Vehicle Module*

The *Vehicle Module* is wired to the vehicle's electrical system. It is out of sight of the user and provides the connection to the vehicle. The coiled cord is permanently attached to the *Vehicle Module* and connects to the *Hand Held*.

2.3. *Determinator Kit - Mouthpieces*

Along with *Hand Held*, *Vehicle Module*, and wiring harness, the *Determinator* Kit includes a disposable mouthpiece. Please note a mouthpiece is not required to operate the device. Should yours break or become lost you may provide the sample directly into the device without the mouthpiece. Please ensure your mouth completely covers the mouthpiece hole and a tight air seal is created.

Extra mouthpieces are available by contacting the ADS office.

3. Operation

3.1. Plug In

Plug the *Hand Held* Unit into the cable. The connector is keyed and will only plug in with the connector writing “up”. To remove, squeeze the both sides of the connector and gently pull.

3.2. Turn On

Turn the ignition to “RUN” - this is the position just before “CRANK”. The *Hand Held* will turn on and prompt the user for the next step.

3.2.1. Turn on Messages

- *Hand Held* firmware version number
- *Hand Held* serial number
- Initializing Message
- Possible Service Due Messages

Pay attention to the service due or lockout date. If you are parking your vehicle for an extended period of time, the device may draw down your battery. To avoid this, unplug the Handset, this will minimize the current draw.

The device must be held upright and as close to level as possible. The device has a built-in instrument which will not allow a test if it is too far to one side or the other, ensuring a proper photo of the user. For positive driver identification, the *Hand Held* takes the driver's photo at the instant a sample is provided and measured. To ensure the driver's face is photographed, the unit must be held upright and essentially level (+/- 30 degrees) with respect to the centerline of the mouthpiece. **Obstruction of the camera is prohibited and will be reported to the governing agency on your case.**

Warm Up

The Determinator must warm to operating temperature before a sample is requested. Bringing a unit indoors in a cold climate will reduce the required warm up time. The message displayed while heating shows 0% to 100% completion.

Camera (Optional GPS Units Only)

Oregon State Law requires the use of cameras with all Breath Alcohol Ignition Interlock Devices. This camera is contained within the *Hand Held* portion of your device. **Obstructing or blocking the camera is prohibited.** With that in mind, be cautious of how you hold the device while testing and be certain your finger(s) are not in the way and that the camera is pointed directly at your face (right between your eyes). Be sure to hold it level. Not completing a Random Retest due to improper usage is NOT an excuse...always be sure you understand how to use your device prior to operating your vehicle.

CAMERA OBSTRUCTION IS PROHIBITED



Proper Holding



Camera Obstruction

Provide Sample: Blow/Suck/Blow (BSB)

The Determinator requests a breath sample at turn-on and at random intervals while you drive.

- Do not provide a sample until requested
- Two beeps are sounded for attention before “Please Provide Sample” is seen/heard.
- Breathe in deeply to fill lungs.
- Provide the sample in three steps:
 - STEP #1: Blow: short, sharp, pulse of air until you hear a beep.
 - STEP #2: Suck: short, sharp, pulse of air until you hear a beep.
 - STEP #3: Blow: long, continuous stream of air to empty the lungs. Keep the pressure above/below the min/max set points. Three tones may be heard:
 - Low tone: blow harder
 - Medium tone: try to maintain this
 - High tone: blow softer
 - When the tone stops, stop blowing, sample is complete. Wait for the voice prompt to start the vehicle.

DO NOT attempt to start the vehicle until instructed to do so. Attempting a start before being prompted may result in a violation.

Breath Sample Procedure:

	Pressure	STEP #1 : Blow Out (short)	STEP #2 : Suck In (short)	STEP #3 : Blow Out (long)
Blow ↑	25	Blow this Hard or Harder until Beep	See Below: Provide quick suck. When you hear the beep - quickly go to STEP #3	Too Hard – Retry
	20			High Tone - Blow Softer
	15			Middle Tone - Continue
	10			Low Tone - Blow Harder
	5	Too Soft – Retry		
	0			
Suck ↓	-5	See Above: Provide quick blow. When you hear the beep - quickly go to STEP #2	Suck this Hard or Harder until Beep	See Above: Provide a long sample. When the tone stops, you're done!
	-10			
	-15			
	-20			

4. Sample Errors

If an error is detected while taking a sample, the *Determinator* says "INVALID SAMPLE". At the same time, the display will scroll one of the following messages to report the actual error and tell the user to retry the sample. Possible errors include:

"Err: Pressure Not Stable" => Prior to Step #1 - do not blow into the unit until requested

"Err: Suck Not In Time" => Step #2 (short suck) sample not provided in allotted time

"Err: Blow Not In Time" => Step #3 (long blow) sample not provided in allotted time or you may be blowing too hard for it to register

"Err: Low Sample Pressure" => Step #3 - pressure was too low during final breath sample

"Err: High Sample Pressure" => Step #3 - pressure was too high during final breath sample

"Err: Sample Temp" => Step #3 –temperature out of range. Do not leave the device in direct sunlight as it may overheat the device

"Err: Fuel Cell Stability" => At the start of a sample, the alcohol measurement device was not ready

Err: Hold Level " => To ensure a clear picture, the unit must be held upright and within +/-30 degrees of level at the time a sample is provided.

5. Start the Vehicle

After a successful sample, the *Determinator* will say "You may start the vehicle". At this time, turn the ignition to start the vehicle. If a sample is positive for alcohol, "Vehicle Starting is Disabled" will

scroll across the display. Once the vehicle has been started, do NOT disconnect the *Hand Held* unit until the vehicle has been turned off. Once started, the *Hand Held* will display “RUNNING” randomly. While driving, the *Determinator* will ask for additional samples. See *Rolling Random Retest*.

6. Rolling Random Retest

While driving the vehicle, you will be asked to provide retests at random intervals. The rolling retest sample is provided the same way as the original sample – by providing a Blow/Suck/Blow sample. The time allowed for you to provide this test is 3 minutes. As the driver, you must be sure you can safely provide this sample. Move to a safe lane, reduce vehicle speed, or pull over, if necessary. Turning off the device will not change or eliminate the retest requirement. If you turn it off during the retest, you can turn the vehicle back on and fulfil the test requirement. If you do not provide the test in this initial 2 minutes or pull over and turn off the vehicle, the device will verbally request you do so. Do not leave a vehicle running unattended - the rolling retest will require a sample. If a sample is not provided in the allotted time, sanctions will be invoked. These include an early lockout and vehicle warning indications. For positive driver identification, the *Hand Held* takes the driver’s photo at the instant a sample is provided and measured. To ensure the driver’s face is photographed, the unit must be held upright and essentially level (+/- 30 degrees) with respect to the centerline of the mouthpiece.



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Startup Error Messages

The following messages may be displayed at unit startup with the unit temporarily disabled. If this occurs, turn the ignition off and back on to retry normal operation. If the problem persists, check the listing below to see what you can do to resolve the issue. If you cannot resolve the issue, call our office and be sure to tell us exactly what the display scrolls in its entirety (the key code will change each time the Ignition is turned off and on). The important message happens after the key code.

Displayed Message Explanation

UNIT MUST BE LEVEL”

To ensure a clear picture, the unit must be held upright and within +/-30 degrees of level at the time a sample is provided.

“Lockout: Enter Code (S/N 001001)”

Unit is locked out due to expiration of the service interval. Notification of the pending lockout was displayed prior to the actual lock out. Provide the *Hand Held's* Serial Number (it is displayed and printed on the unit's rear label) to Alcohol Detection Systems for a possible access code override (*fee may apply*). A 5 digit code will be provided. Enter the code using the *Hand Held's* keypad with the buttons representing the numbers 1, 2, and 3. The unit will allow for 24 hours of continued operation while a replacement *Hand Held* device is shipped (fee will apply).

"DISABLED - RANDOM RETEST FAIL"

A random retest was not provided in the allotted time. Pull over as instructed and turn off the ignition.

"DISABLED – NO SAMPLE"

No sample was provided in the allotted time. Turn off ignition and then retry.

"DISABLED - BREATH TEMP"

The temperature of the sample was too low or too high. Turn off ignition and then retry

"DISABLED - POSITIVE ALCOHOL"

A sample over the allowed limit was measured. If driving, pull over as instructed and turn off the ignition. Upon turning the ignition back to on, you will see a NS XXX. This is a count down until you can retest (in Minutes). When this gets to 0:00, you can retest. We highly recommend you rinse your mouth out with water and retest at least one time after a failed test. Before you do consider what may have caused it and correct the situation, then retest.

"DISABLED - AMBIENT TEMP"

System error: the internal ambient temperature is out of expected range. Turn off ignition roll windows down if hot and retry

"DISABLED – HEATING VOLTAGE"

System error: the heater encountered an unexpected condition. This generally may be an indicator of a dead or low vehicle battery condition. Charge your vehicle's battery up, then retry. This error message will be gone when the vehicle's battery has sufficient voltage to allow the device to heat up properly. DO NOT ATTEMPT TO START THE VEHICLE WHILE STILL CONNECTED TO A CHARGER OR ANOTHER VEHICLE. You must allow the battery to charge, THEN disconnect from the charging agent THEN turn the device on. ATTEMPTING TO START THE VEHICLE WHILE STILL CONNECTED WILL DAMAGE THE UNIT AND THE ENTIRE UNIT MUST BE REPLACED BEFORE YOU MAY USE THE VEHICLE AGAIN.

"DISABLED - SYNCH ERROR"

The *Hand Held* could not communicate with the *Vehicle Module*. This could indicate a problem with either the device or the cable between the *Hand Held* and *Vehicle Module*. Unplug the *Hand Held*, check both sides of the connector for dirt or debris, blow out both with air, reconnect, and retry.

Voice Prompts

The Determinator has several voice prompts that are spoken to alert the user to provide a sample or indicate the unit status.

Spoken Prompt Explanation:

"Return for Service Soon" — Spoken after warm up if service is due in less than 3 Days.

"Please Wait" — Spoken while heating or before requesting a sample.

"Determinator, Please Wait" — Start-up message.

"Please Provide Sample" — Spoken for a first test or rolling random retest. Provide a breath sample.

"Please Retry Sample" — Previous sample failed. Provide another breath sample.

"Provide sample now" — Spoken during a random retest if the first request is ignored.

"Provide Sample Now or Vehicle Lockout will begin" — Spoken during a random retest if the first two requests are ignored.

"Pull over and stop the vehicle" — the engine was detected as running without authorization to start/run. Continuing to drive after

a positive alcohol sample or the failure to provide a random retest will also generate this message.

"Invalid sample - Please wait" — Spoken if the provided sample could not be measured (temperature/pressure/etc.). See breath sample procedure above.

"You May Start the Vehicle" — The vehicle may be started.

Spoken if a proper sample was provided or if the engine dies and a courtesy restart is allowed.

"Vehicle Starting is Disabled" — An alcohol positive sample was measured. The vehicle will not start.

"Rolling Retest Passed. Thank You"— A valid sample was provided for a rolling random retest. A new random interval will be calculated.

"Return for Service Now - Vehicle Lockout" — Lockout period has elapsed. Vehicle is locked out and may not be started. If enabled, a code may be entered for a 24 hours grace period.

7. Courtesy Restart

If the engine dies or is turned off, a courtesy restart is allowed. If a rolling retest is not required, the vehicle may be restarted for up to two minutes. If the engine ever dies or is turned off, turn the key off then to the run position and wait for the device to say "You May Start the Vehicle". DO NOT attempt to restart the engine until you hear "You May Start the Vehicle". Doing so may result in a recorded violation and an early service notification

8. Service Interval / Unit Lockout

The Determinator must be returned for state mandated service every 30 days. Every time the *Hand Held* is turned on, it will display the number of days before the next required service: "**service due XX day**". When the device is in the final day before service is due, the device will read **SERVICE DUE MIDNIGHT**. Remember, **Service due** means service is approaching and **Lock due** means lock out is approaching. To perform this, you will need to return to your installation center. **YOU WILL NEED AN APPOINTMENT TO PERFORM THIS SERVICE**. The STATE OF OREGON requires your data be reported to them within certain limits. If you are late in taking your vehicle in, your data will not be able to be reported in time, your license/ privilege may be suspended, and you may be subject to additional fees. If your license/ privilege is suspended, the time with the interlock installed during that suspension will not count toward your required interlock time.

9. Failing Tests/ Tampering / Circumvention / Early Service

If you fail a start test due to the presence of alcohol, then the device will enter a temporary time out (3-10 min). When this occurs, you should immediately determine the reason and retest after an

appropriate time or when the temporary time out has passed. A person tampering with, circumventing, or otherwise misusing this Ignition Interlock System is guilty of a misdemeanor and on conviction is subject to additional time in the Interlock Program, a fine, imprisonment, or possibly all of the above. Tampering and circumvention include: jump or push starting the vehicle, **opening the unit's case**, disconnection of the *Vehicle Module* or battery, and bogus breath samples. If any tampering, circumvention, or positive alcohol is detected by the unit, the service interval may be set to **lock due 7 days**. If this occurs, the unit will be locked out unless returned for service within this time period. Contact ADS if this occurs. The *Determinator Hand Held* and *Vehicle Module* devices log and report all aspects of the unit's operation as well as any tampering or circumvention detected to state authorities. The state may send a request for explanation letter on these types of events, so you must answer these requests when you receive them.

Frequently Asked Questions

Q: Can I leave my car running while it warms up on a cold morning, or while I run into the convenience store?

A: NO. Once a vehicle has been started, the *Determinator* will randomly prompt the user for a sample. If the user is not available, this will be treated as a failure to provide a random retest and an early lockout will occur.

Q: The *Determinator* requires a long time to heat up and request a sample. Can this time be decreased?

A: The *Determinator* must warm up to operating temperature. In cold climates, warm up time can be improved by disconnecting the unit from the cord and bringing the unit indoors or keeping it in a pocket when not in use.

Q: "My battery died" or "I replaced my battery". What do I do?

A: The State of Oregon requires the vehicle to be in good operating condition when the device is installed. Any loss of power to the device, regardless of reason, is considered a "tamper" and will affect your IID requirement. Whenever possible, obtain documentation on a power interruption for your own protection.

Q: A sample was rejected for "Pressure not stable".

A: Do not provide a sample until requested. If a user blows into the unit or even breathes lightly into the unit before it is ready, this error can occur. Please wait until prompted and retry the sample.

Q: A sample was Invalid due to "Sample Temp".

A: This is not common when used properly, however, it can occur occasionally when left in direct sunlight or extremely hot/cold

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vehicles. The device is designed to operate and detect certain conditions during a sample. If a unit is too hot/cold, it cannot properly detect these conditions. Warm or cool your device and retry the sample.

Q: The display reads “Synch Error” while I attempt a test/ retest.

A: This occurs when the *Vehicle Module* loses communication with the *Hand Held*. The most common cause for this is the cable not being properly connected to the *Hand Held*. Turn off the ignition, unplug the handset, and check to make sure there is no dirt or debris in either the connector or the receptacle by blowing through each component. Then reconnect, making sure the connector seats securely into the receiver. If the problem persists, contact Alcohol Detection Systems for further options.

Q: My device will not allow me to test. It says provide key (12345) (*may be different number*), what do I do?

A: In most cases, the device will give an entire message (“Disabled Provide Key 12345 Heating voltage”). These startup errors are described in section 14 of the owner’s manual. If you call our office asking what to do, we are going to ask you what the entire message says. If you do not know then we will recommend you determine the entire message and call back. With up to 30 different error messages, we need to know the entire message or we cannot assist you. .

Q: My device displays “Service Due at Midnight”.

A: This is the day before your regular service date. When you go to start your vehicle the next day it will work and the message will display “Lock Due 7 Days”. This is your actual service date. Contact us to schedule your service.

Q: My device said “Service Due in (50) Days”, (for example) earlier today, now it says “Lock Due 7 Days”.

A: If your device drastically jumps dates from service due to a Lock Due message then it is calling for early service due to some reason. You will need to contact Alcohol Detection Systems to schedule your service. If you do not contact us, your device will lock you out of your vehicle when the “Lock Due” reaches zero days.

Q: My vehicle requires service, what do I do?

A: Occasionally you may need to take your vehicle in for service. If this is for basic service like an oil change, tire work, etc., then we do not need to know about this. If it is for major work under the hood or to the electrical system, contact our office and let us know what is being done, by whom, and when. Make sure you get a receipt for any work performed showing the work done and the time

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it was in possession of the repair center. Have the repair center contact us for additional information if needed.

Q: I failed a test, now the device says “NSXXX”, what do I do?

A: The NSXXX is a countdown of a **No Start** condition. Once this counts down, you may retest. First, figure out why you failed the test. Was it from an external source or from consumption of alcohol? If it was from an external source, resolve the contamination by rinsing your mouth out with water or air out the vehicle, whatever is required to remove the alcohol from your sample. Then retest as soon as possible. In most cases, if you rinse your mouth out with water then you can retest after 10 minutes. Getting a passing test as soon as possible is crucial at this point.

Q: What do I do when I am done with the device?

A: Contact the DMV at 503-299-9999 and confirm you are eligible for removal. In order to have your IID requirement removed from your license, ADS must submit a 90 day non negative report unless permission for early removal was granted from the court. We cannot submit that report or remove your device unless you are eligible for removal. Once you confirm your removal eligibility, contact us to schedule your removal. If you were granted early removal, you must bring a copy of that court order with you at the time of removal. Removals are scheduled one week out due to our own requirements for removals.

WARNING! ANY PERSON TAMPERING, CIRCUMVENTING, OBSCURING CAMERA IMAGES, OR OTHERWISE MISUSING THIS DEVICE IS GUILTY OF TAMPERING. TAMPERS WILL BE DETECTED BY THE DEVICE AND REPORTED TO YOUR SENTENCING AGENCY, THE DMV AND ANY GOVERNING AGENCY ON YOUR DUI/DUII CHARGE. THIS INCLUDES ANY LOSS OF POWER TO THE DEVICE, SO IT IS YOUR RESPONSIBILITY TO ENSURE THE BATTERY IN YOUR VEHICLE IS FULLY CHARGED AT ALL TIMES.

If you ever have any questions, please contact us at

503-372-5278

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