



SSI-FLEX User Manual



This document provides general user instructions for the SSI-FLEX Breath Alcohol Ignition Interlock Device.

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Smart Start Canada ULC's device FLEX, a breath alcohol ignition interlock device (BAIID) complies with legal requirements in the jurisdiction to which it is certified. In the USA, the National Highway Transportation and Safety Administration, NHTSA, publishes a model specification (78 FR 26849) that individual Provinces may adopt into their rules and regulations with additional requirements to that province's offender program. Smart Start Canada ULC conducts business in 45 states in the US and internationally in 21 countries.

Upon request, Smart Start Canada ULC. can provide specific legal requirements to the jurisdiction in question.

Smart Start Canada ULC.

Content

Safety	4
Product Description	4
Device Components	5
Cleaning Cautions.....	5
Other Cautions	5
Description	5
Head Unit	6
Parts Listed	6
SSI-FLEX Operations	7
Mouthpiece installation.....	7
Fuel Cell Module	8
Menu options	9
Entering Unlock Code.....	10
Relay Unit	11
Interconnecting Curly Cord	11
Wiring Harness	12
How to take a Test.....	13
Post-Test Results.....	13
Re-Test.....	14
Lockouts	15
Service Lockouts	15
Violation Lockouts.....	15
Displayed messages and Troubleshooting Guide	17
Service and Calibration.....	19
Service and support.....	19

Figures

Figure 1 Head Unit	6
Figure 2 Fuel Cell Module.....	7
Figure 3 Relay Unit.....	11
Figure 4 Curly Cord Quick Disconnect Closed	11
Figure 5 Curly Cord Quick Disconnect Open	12
Figure 6 Wiring Harness	12

Tables

Table 1 Displayed Message & Troubleshooting Guide	17
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Safety

Strictly follow the instructions for use. Any use of the SSI-FLEX device requires the full understanding and strict observation of these instructions. The device is to be used only for the purpose specified in this manual.

Any changes and/or additions to the SSI-FLEX device may cause the device to malfunction or be damaged. Such changes and/or additions invalidate any or all warranty of the device or vehicle.

To protect against electrical shock and fire, maintain a secure connection of all components to the SSI-FLEX. Do not cut any cables connected to the SSI-FLEX as this could result in electrical shock or fire.

The installation may only be carried out by an authorized Smart Start Canada ULC. Service Centre according to the instructions for installation. Service and maintenance must only be performed by qualified persons.

The liability for the proper function of the instrument is irrevocably transferred to the owner or operator to the extent that the instrument is serviced or repaired by personnel not employed or authorized by Smart Start Canada ULC, or if the instrument is used in a manner not conforming to its intended use.

Do not place the interlock where it is prone to damage: on the floor, under your ashtray, or where you can't see or hear it. Also, do not expose the unit to moisture. You are liable for all damages due to negligence or abuse of the device.

Do not tamper with the device as this will result in additional charges and notification to appropriate monitoring authorities.

Smart Start Canada ULC cannot be held responsible for damage caused by non-compliance with the recommendations given above. The warranty and liability provisions of the terms of sale and delivery by Smart Start Canada ULC are likewise not modified by the recommendations given above.

Production Description

The SSI-FLEX BAID is a breath alcohol analyzer that connects to a motor vehicle's ignition system. To start the vehicle's engine, the driver must first blow and pass a deep lung breath sample into the interlock. The interlock measures the alcohol concentration of the breath sample and prevents the vehicle from starting if the alcohol concentration exceeds a preset value. In addition, the device records all breath test results, driving times, disconnection, and tampering.

Device Components

The SSI-FLEX components include:

- Head Unit
- Fuel Cell Module
- Relay Unit
- Interconnect Cable
- Wiring Harness

Cleaning Cautions

Use only mild soap and water on a damp cloth to clean the outside of the unit. Solvent, alcohol, or chemical-based cleaners can damage the unit or result in false readings.

Mouthpieces can also be washed and reused. Always use a clean and dry mouthpiece for every test.

Other Cautions

- Use the device only for its intended use as described in this manual.
- Do not drink alcohol, eat alcohol-containing foods including medicines or lozenges or use alcohol-based mouthwash or mouth spray for at least 15 minutes before taking a breath test. Alcohol residue in your mouth will result in a higher alcohol reading.
- Do not immerse the device in water or any other liquid.
- Never operate the device if it is not working properly, has been dropped or damaged, or has been immersed in any liquid.
- Except for a mouthpiece, never insert any object into any opening.
- Do not use where aerosol (spray) products are being used or where oxygen is being administered.
- Do not store the device where it is exposed to direct sunlight or near a heater or other source of heat.
- Keep out of reach of children.
- Call 1-844-432-4776 for service or repair.

Description

The SSI-FLEX is an Ignition Interlock Device intended to prevent a person who has consumed alcohol from driving a vehicle.

The interlock device measures alcohol in the human breath. Before starting a vehicle equipped with the SSI-FLEX, the driver must provide a breath sample.

A sample of deep lung air is taken after blowing 1.2 liters of exhaled human breath into the device. If the exhaled breath sample is not performed correctly, the sample will need to be repeated.

The Alcohol measured in the air sample reflects the alcohol concentration in the blood. The device is set so that the vehicle can only be started if any alcohol content in the driver's exhaled air is measured to be less than 0.10 milligrams per liter of exhaled air. This corresponds to an alcohol content of 0.2 per thousand (permille) in the blood.

In addition, the device records all breath test results, driving times, disconnection, and tampering.

The interlock device does not affect the engine operation and cannot turn your engine off once it is running.

Anyone can drive your vehicle, but they must use the device, and YOU are responsible for all readings recorded by the device.

Head Unit

The Head Unit is the hand-held user interface for the breathalyzer. The head unit contains the breath test portion of the device and user interface. It instructs the user via the color LCD display, bi-color LEDs, and speaker to indicate pass, warn and fail.

The LCD display instructs the user when to BLOW a breath test. The results of the test are then shown on the LCD display. Other pertinent information, such as the client's appointment date and time and the number of remaining violations can also be displayed.

3-buttons are integrated into the head and provide several functions to both the user and the installer of the device.

The functions of the keypad include:

- Two-way users *unlock* codes. This is a code given to the client by the provider. The code automatically changes every day and can only be used one time. It allows the client to temporarily enable a previously locked-out unit allowing a breath test to be taken. If the test is passed, the vehicle can be started to drive to the provider's station for unlocking or service. This allows the provider to keep strict control over the client's monitoring schedule while keeping the user happy by saving the customer towing or service fees normally associated with a date-specific lockout system. The code is user- and unit-specific depending on the options set at the time of installation.
- View of service and device information



Figure 1 Fuel Cell Module & Head Unit

Parts Listed

The SSI-FLEX unit consists of the following parts:

- The SSI-FLEX device
- Fuel Cell Module
- Display screen
- 3 Button Keypad

SSI-FLEX Operations

Mouthpiece Installation

The SSI-FLEX has a slot for the mouthpiece. The mouthpiece can be inserted on top of the device into a locking position.



Mouthpiece Installation

The mouthpiece is a plastic sleeve that fits on top of the device. You should feel a slight click when the mouthpiece is engaged with the unit.

The Fuel Cell Module



Figure 2 Fuel Cell Module

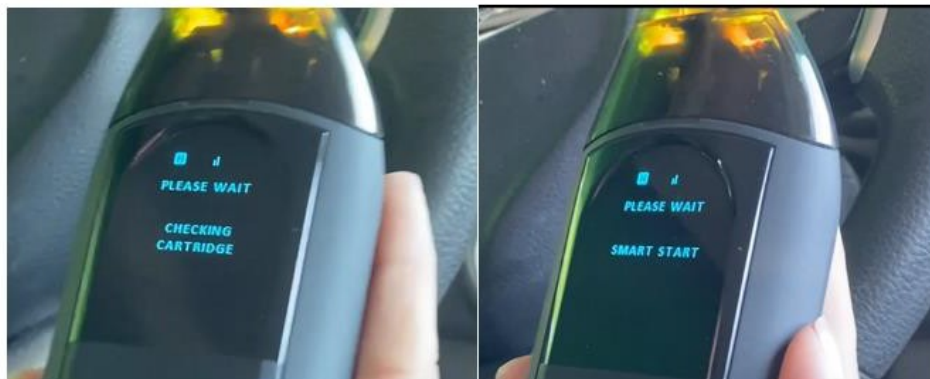
The FMC is secured by a screw on the Head Unit. To Unlock and removed the cartridge turn the screw to the left by using a coin-size tip screwdriver or a similar object. To Lock into position, turn Right.



The image below shows when the cartridge has been removed. **“Insert cartridge”** will be displayed on the screen.



Once the cartridge has been inserted the device will complete its internal checks to ensure the FCM is ready to accept a sample before the unit displays **“Blow.”**



CARTRIDGE EXP is the Cartridge Expiration Date which is the required date the FCM needs to be serviced before the unit is locked out (Service Lockout Date). Depending on the program, this could mean the FCM would need to be serviced at a Smart Start service centre.



Menu Options

To navigate the menu option, press the middle button. The top and bottom buttons will navigate up and down through the menu. The middle button is used to select the desired option.

Programmed Menu options

- **EXIT** - Returns to the main screen
- **VOLTAGE** - Used to check the voltage of the device.
- **CALL CODE** - Used to generate an Unlock Code.
- **RESPONSE CODE** - Used to enter an Unlock Code and/or Override code
- **VERSIONS** - Displays firmware versions on the unit
- **MODULE STATUS** - Used for Status Check to the FCM
- **DATE** - Check the following date corresponding to the account.
 - Activation - The date the FCM was assigned to the account.
 - Expiration - The date the FCM will need to be serviced or replaced
 - Payment - Date due date
 - Inspection - Inspection of the device's due date

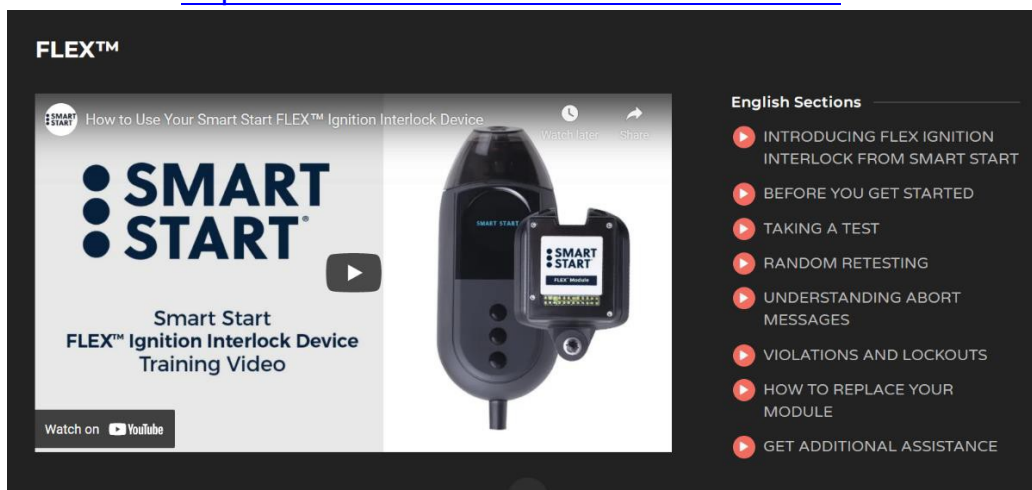
Entering the Unlock Codes

1. To generate the unit's call code, contact the Customer Service line at 1-844-432-4776.
2. Activate the menu by clicking the middle button and selecting **"CALL CODE"**. This will display the Call Code to generate the Unlock/bypass which will be provided by an SSI Customer Service agent.
3. Activate the menu option and select **"RESPONSE CODE"**. Enter the Unlock/bypass code on the unit.
4. Use the Top and Bottom buttons on the device to scroll to the desired number (0-9). Click the middle button to select the number. Once the last digit is selected and the code is valid, the unit should display the defined amount of unlock hours generated by Smartrac.



Flex device training videos are available on the following URL.

<https://www.smartstartinc.com/clients/videos/>



Relay Unit

The Relay Unit is the lower part of the system hidden under the dash of the vehicle out of the user's view. This part of the unit contains the other part of the log file. The Relay and Head record to memory the settings and the log files in case of power loss due to vehicle malfunction or tampering. The Relay unit also incorporates a separate regulated power supply for the Head.



Figure 3 Relay Unit

Interconnecting Curly Cord

The Relay and Head unit are connected using a specially designed cable using molded connectors. The cord is secured to the Head unit and Relay Unit by a quick disconnect. This makes the Head Unit unremovable by the user.



Warning! The interconnect cable is specific to the SSI-FLEX and should not be modified or replaced with any other type of connector or wire. Doing so may cause unit and vehicle damage and will void the warranty.

Figure 4 Curly Cord Quick Disconnect
Closed



Figure 5 Quick Disconnect.

Open

To disconnect, simply align the red dots to separate the two sides. Likewise, to reconnect, align the red dots and slightly push the dots into position. There should be little to no resistance when reconnecting.



Wiring Harness

The wiring harness supplied with each relay unit is used to connect the relay to the vehicle's electrical and ignition system. The design allows for ease of installation and modular replacement. Additional harnesses can be purchased. A wiring harness is shown in Figure 4.



Warning! The wiring harness is specific to the SSI-FLEX and should not be modified or replaced with any other type of wiring. Doing so may cause unit and vehicle damage and will void the warranty.

**Figure 6 Wiring Harness**

How to Take a Test

If you are the driver of the vehicle, letting someone else take a test for you is a program violation.
Use a clean mouthpiece for each test.



Before taking a test:

1. Drink **WATER** before each breath test. This helps to eliminate breath contaminants.
2. Do not use a breath freshening agent as most of these agents contain a high level of alcohol.
3. Always take a **DEEP BREATH** immediately before taking a test.

1. Turn on the vehicle's ignition. The unit activates and **PLEASE WAIT** is displayed. During this time, the device is preparing for a test. *Take this time to drink WATER to eliminate breath contaminants.*
2. Once the unit has initialized, the unit displays the word **BLOW**.
3. You can only take a test when the word **BLOW** is displayed; not before.
4. Take a deep breath and blow steadily into the mouthpiece for approximately 6 seconds.

While you are blowing into the mouthpiece, the word **TEST** is displayed.

5. Keep blowing into the mouthpiece until the unit clicks and the sound of the beep stops.
6. If you do not complete the test (incomplete test), the reason for an unsuccessful breath sample is displayed. This is described in the following section, Post-Test Actions.
7. After successful completion of the test, **ANALYZING** will be displayed for a short time while the unit is analyzing the breath sample.

Post-Test Results

When the analysis is complete, one of the following will be displayed:

1. **PASS** is displayed and you may now start your vehicle.
2. **WARN** is displayed and you may now start your vehicle.
3. **FAIL** is displayed and you **will not** be able to start your vehicle.
4. **VIOL(Violation)** is displayed, and you **will not** be able to start your vehicle.
5. For an Incomplete Test, the reason is displayed, and you **will not** be able to start your vehicle.
6. When the vehicle is started, an asterisk (*) is displayed on the top right side of the display. This indicates that the unit has detected that the vehicle's engine is running.

Post-Test Actions

When you blow an **Incomplete Test** or a **FAIL**, you must take another breath test and pass this breath test before your vehicle will start.

After blowing a **FAIL**, the LCD displays **FAIL**, cycles back to **PLEASE WAIT**, and then **BLOW**. The reasons for an Incomplete Test are as follows:

- **BLOW SOFTER** - Caused by blowing too hard and you need to reduce your airflow during blowing.
- **BLOW LONGER** - Caused by not blowing hard enough or for a long enough time and you need to increase your airflow and/or blow longer.
- **PLEASE RETRY** - The unit has excess moisture built up inside due to constant blowing or testing, can also appear if the vent located behind the SSI-FLEX Head Unit is obstructed - Tester will need to allow time for the unit to remove excess moisture and/or remove what is covering the vent

Re-Tests



Before taking a test:

1. Drink **WATER** before each breath test. This helps to eliminate breath contaminants.
2. Do not use a breath freshening agent as most of these agents contain a high level of alcohol.
3. Always take a **DEEP BREATH** immediately before taking a test.

Once your vehicle is started, the device will ask for a random re-test by beeping and indicating **BLOW** along with a timer reading.

The re-test timer gives you enough time to safely pull over and take the test. If you fail to take the re-test, the unit will indicate **MISSED TEST**.



Warning! Failure to take the re-test is a violation and will be recorded by the device.



Caution! When using the device, always obey the local traffic laws, practice safe driving habits, and keep your eyes on the road.

You should always find a safe place to park away from traffic before taking a re-test.

Do not turn your ignition off. You must take the test **before** turning off your ignition or a violation will be recorded by the device.

Make sure that the Head Unit is positioned where you can see the display. If a re-test is requested and you are driving with the radio playing loud or a window down, you may not hear the beeping sound that the unit will make when a retest is requested.

An optional LED light is available for clients who are hearing impaired.

Lockouts

Per Provincial requirements, the device can trigger a lockout for several reasons. The different type of lockouts is listed below.

The grace period leading up to the permanent lockout will differ from province to province.

Each time a violation is registered, the unit will deduct 1 from that number. The device will **lockout** and not allow you to take a test under the following 4 conditions:

1. Temporary Lockout

Indicated by the message **FAIL / LOCK x:xx: xx** being displayed. This happens when you fail several repeated breath tests. The device will *temporarily lock out* for a moment. This time will be displayed on the unit while counting down.

Temporary lockouts can happen if you fail breath tests before you start your vehicle OR after you start the vehicle (retests).

During this temporary lockout period, the device will not allow you to re-test. Use this time to drink water and take some deep breaths. Test again when the device resets.

Test again when the device resets. During the temporary lockout, the handset should not be disconnected.

Every province has different regulations surrounding temporary lockouts and the time of the temporary lockout. See province specific information regarding how temporary lockouts work in your Province. Some Provinces require a **RE-TEST** to be provided within a specific amount of time after a temporary lockout has ended.



Warning! A temporary lockout may require you to return for service.

2. Service Lockout

Indicated by the display of **SvcLckxxday** or **SvcLockxxhr**. This is **your service warning** showing the number of days or hours remaining before the device permanently locks outs due to missing your scheduled service date.

Once the device displays **LOCKOUT SRVC**, you will be permanently locked out. It will not allow any further tests or allow you to start your car. It will require you to call your service provider for an **Unlock Code**. There may be a charge for this code.



Warning! Do not ignore the service warning grace period!

3. Violation Lockout

Indicated by the unit displaying **LOCKOUT VIOL**. This occurs after you use your last violation, **and** you exceed the allowed lockout grace period.

A violation can be caused by any of the following:

- a. A high-level breath failure
- b. Missing a re-test
- c. Starting the vehicle without passing a test
- d. Disconnecting the device while it is turned on

These violations are counted between service visits. The unit displays **VioLckxxday** or **VioLockxxhr**, indicating the number of days or hours left until the permanent violation lockout occurs.

Once the device displays **LOCKOUT VIOL**, you will be permanently locked out. It will not allow any further tests or allow you to start your car. It will require you to call your service provider for an *Unlock Code*. There may be a charge for this code.



Warning! Do not ignore the violation warning grace period!

4. Restricted Drive-Time Lockout

Indicated by the unit displaying **RESTRICTED DRIVE TIME**. This only occurs if the unit is programmed with restricted driving times as ordered by the Monitoring Authority.

During the restricted lockout time, the device will not allow you to take a test or start your vehicle.

You are responsible for the tow bill if the problem is not unit related. Please contact your local service centre for troubleshooting possible unit related problems.

Displayed Messages and Troubleshooting Guide

Displayed Message	LEDs	Description	Action
PLEASE WAIT		The unit is preparing for a breath test.	Wait until the unit displays BLOW .
BLOW		The unit is ready to accept a breath test.	Blow steadily into the mouthpiece and remember to HUM (if required).
TEST		The unit is accepting the breath being exhaled into the mouthpiece.	Keep Blowing and remember to HUM (if required)!
BLOW LONGER		The breath sample was too short.	Repeat the test and blow longer.
BLOW SOFTER		You were blowing too hard.	Repeat the test and blow softer.
DON'T INHALE		The unit detected air was sucked from the mouthpiece.	Repeat the test and do not suck air from the mouthpiece.
PLEASE RETRY		Excessive moisture builds up or obstruction the vent.	Wait until the moisture has evaporated or remove the obstruction from the vent.
PASS		The alcohol measured in the breath sample was below the preset fail level.	You can start the car.
VIOL		The alcohol measured in the breath sample was above the preset fail level.	You cannot start the car.
FAIL		The alcohol measured in the breath sample was above the preset fail level.	You cannot start the car.
FAIL LOCK x:xx:xx		Temporary lockout condition due to excessive repeated failed breath tests	You must wait until the countdown timer has ended before testing again.
SvcLckxxhr		This a reminder of the number of hours remaining before the unit goes into permanent lockout due to missing your service appointment.	Call your local service centre to arrange an appointment to have your interlock serviced.
ViolLckxxhr		This a reminder of the hours remaining before lockout due to violations.	Call your local service centre to arrange an appointment to have your interlock serviced.
LOCKOUT SRVC		The device is in permanent lockout due to missing the appointment date.	Call your local service centre.

Displayed Message	LEDs	Description	Action
LOCKOUT VIOL		The device is in permanent lockout due to violations.	Call your local service centre.
RECALL		The device has an error.	Switch the ignition off/on and repeat the test. If the message reappears, call your local service centre or Smart Start Customer Service.
(No messages on display - LEDs are working)		The display may have stopped working, but the device is still functioning.	Perform the test normally. Call your local service centre.
(No messages on display - LEDs are not working)		The device has an error.	Call your local service centre or Smart Start Customer Service.
PASS (but cannot start the car)		The device has an error.	Call your local service centre or Smart Start Customer Service.
INSPECTION DUE		You're required to visit a service centre for this inspection.	Some provinces do not require physical inspection. If that is the case, your device will not display the alert.
INSERT CARTRIDGE		Displayed when the module is not in the locked position.	Make sure that the module is properly inserted, and the locking screw is in the locked position.
MODULE EXP		Displayed when the module has expired and passed the allotted time in the device	A replacement module is needed. Contact Smart Start Customer Service.
PAYMENT DUE		Payment needed to bring your account up to date	Some provinces require a Modem where the lockout date can be advanced over the cellular network. All there are required to return to their local service centre.
CARTRIDGE NOT READY		The account to the Fuel Cell Module does not match the Head Unit.	Call your local Service Centre.

Table 1 Displayed Messages & Troubleshooting Guide

For all further questions, please contact your local service centre, Smart Start Customer Service or visit www.smartstartcanada.ca and go to the Information for Clients - Product Support page.

SSI-FLEX Service & Calibration

Regular service and calibrations must be performed on the device. These must be performed:

- Only by an authorized Smart Start, Inc. Service Centre.
- When the service lockout warning message **SvcLckxxhr** is displayed.
- At your next scheduled appointment

Smart Start will check the calibration of the interlock at every service.

Disposal of the device

The SSI-FLEX must not be disposed of using common household disposal methods. The device can be returned to Smart Start Canada ULC, or a Smart Start Canada ULC authorized service centre. Please contact Smart Start Canada Customer Service at 1-844-432-4776 for further information.

Spare Parts & Accessories

- Mouthpiece

If you require extra mouthpieces, please contact our service personnel.

Service and Support

Customer Service Contact Information

Contact Smart Start Customer Service at 1-844-432-4776 and a live person will help you 24/7/365.

If you leave a message, be sure to include your area code, phone number, and full name so that we can return your call.

SSI-FLEX Service

You will be instructed when to bring the device in for service and calibration. Be sure to make a note of your service appointment time.

If your vehicle needs service, have the service technician call Smart Start for instructions. Keep receipts from the shop indicating the date and time it was in for service as well as the date and time it was picked up.

If you need to replace your battery or starter, keep the receipt of purchase, and keep the time between disconnecting the battery and reconnecting it as short as possible.

After-Hours Service

If you need service after normal business hours, call us toll-free at 1-844-432-4776. Our Customer Support Centre is staffed 24/7/365 to help. If you leave a message, be sure to include your **area code, phone number, and full name** or we may not be able to return your call.

Support Locations

Please visit www.smartstartcanada.ca to determine the location of your nearest Smart Start Service centre