



ARKANSAS DEPARTMENT OF HEALTH

**INTOXIMETER EC/IR II
Operator Training
Manual**

**Office of Alcohol Testing
201 South Monroe
Little Rock, Arkansas 72205
(501) 661-2425**

ARKANSAS BREATH TESTING

INTOXIMETER EC/IR II OPERATOR TRAINING MANUAL

This manual is provided for information purposes. Memorization is not required for certification. It is revised as necessary.

Revised March 2023

TABLE OF CONTENTS

	<u>Section</u>
Operator Responsibilities	1
Arkansas Law and Alcohol	2
Dry Gas Standards	3
Operational Principles of the Intoximeter EC/IR II	4

RESPONSIBILITIES OF INTOXIMETER EC/IR II OPERATOR

1. Ensure that the instrument is working properly.
2. Ensure that the subject has been advised of implied consent rights and that the 20 minute observation period has been adhered to.
3. Operate the breath-testing instrument in accordance with the instructions/questions prompted by the instrument. The printed test record will be evidence that the procedure was followed. (Breath results are reported as g/210L of breath.)
4. Inspect the test record to insure that all information was printed properly, and that the required signatures are present.
5. Make a logbook entry of the test at the time the test is completed.
6. Be prepared to testify in court about the test procedure.
7. Ensure your certificate is current and your place of employment matches what is on your certificate.
8. Promptly advise the Senior Operator In Charge of any issues you have with the instrument or certificate.

5-65-204. VALIDITY - APPROVED METHODS.

- (a) (1) Alcohol concentration shall mean either:
- (A) Grams of alcohol per one hundred milliliters (100ml), or cubic centimeters (100cc) of blood; or
 - (B) Grams of alcohol per two hundred ten liters (210L) of breath.
- (2) The alcohol concentration of other bodily substances shall be based upon grams of alcohol per 100 milliliters (100ml) or 100 cubic centimeters (100cc) of blood, the same being percent weight per volume or percent alcohol concentration

Breath may **NOT** be expressed as a percent (%).

ACCURACY CHECK AND DRY GAS

The EC/IR II uses a Dry Gas Standard for its accuracy checks, which is ruled by Boyle's Law: "as pressure increases and volume decreases the concentration of a gas will increase." The expected ethanol value of a dry gas standard changes with pressure (the lower the pressure the lower the reading), therefore it is necessary to calculate a correction factor to compensate for pressure changes. This correction factor is $[(P1) \times (V1)] / T1 = \text{Constant}$. Lower altitude means higher pressure and higher target value than in the mountainous regions.

EX: In North Arkansas (mountainous) if a cylinder has a gas reference value of .100 at sea level (760 mm HG), and the air pressure is 715 mm of HG at that location, then the gas value of .100 is $715/760 \times .100 = .094 = .094\text{g}/210\text{L}$.

EX: In Southeast Arkansas (delta) if a cylinder has a gas reference value of .100 at sea level (760 mm HG), and the air pressure is 755 mm of HG at that location, the gas value of .100 is $755/760 \times .100 = .0993 = .099\text{g}/210\text{L}$.

The higher the elevation, the lower the pressure, thus the lower the target value.

The EC/IR II automatically calculates the target value of the dry gas sample using an internal barometric pressure sensor. The target value is printed on each ticket when a test is run. When the instrument performs the accuracy check during a test procedure it takes a sample of the dry gas standard and measures the alcohol concentration in the sample. The instrument then compares the reading against the target value. The external standard value must read within $+.003\text{g}/210\text{L}$ or $-.007\text{g}/210\text{L}$ of the target value in order for the test to proceed. If not, the instrument will end the test automatically and disable itself and a supervisor test will need to be performed by a Senior Operator.

The accuracy check is performed during every test sequence. This establishes whether or not the instrument was accurate at the time the subject was tested.

The standards used in Arkansas are a compressed gas tank containing a mix of nitrogen and ethanol gas, mixed to give a specific ethanol result.

Temperature has no measurable effect over normal usage, as long as the internal temperature is above the dew point. The dew point is 32°F.

The dry gas standards used in Arkansas are National Institute of Standards and Technology (NIST) traceable, meaning the value is verified through NIST. This validates the value of the standard.

The tanks are good for approximately 300 to 400 samples, and expire 2 years after fill date. Tank pressure, lot number, and expiration date are printed on every subject test ticket. The instrument will advise when tank pressure is becoming low (less than 100psi) and/or the expiration date is nearing. At this point, the Office of Alcohol Testing should be notified. The instrument will disable itself once the tank expires or pressure drops below 50psi.

Tanks must be replaced by the Office of Alcohol Testing.



CAUTION: HIGH PRESSURE GAS. CAN CAUSE RAPID SUFFOCATION
 Use with adequate ventilation. Use equipment rated for cylinder pressure and use after each use and when empty. Use in accordance with the Material Safety Data Sheet (MSDS). **FIRST AID: IF INHALED,** move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. **DO NOT REMOVE THIS PRODUCT LABEL.**

ALTITUDE VALUE	ALTITUDE VALUE	ALTITUDE VALUE
0 - 0.100	2750 - 0.090	5500 - 0.082
250 - 0.099	3000 - 0.090	5750 - 0.081
500 - 0.098	3250 - 0.089	6000 - 0.080
750 - 0.097	3500 - 0.088	6250 - 0.079
1000 - 0.096	3750 - 0.087	6500 - 0.079
1250 - 0.096	4000 - 0.086	6750 - 0.078
1500 - 0.095	4250 - 0.086	7000 - 0.077
1750 - 0.094	4500 - 0.085	7250 - 0.076
2000 - 0.093	4750 - 0.084	7500 - 0.076
2250 - 0.092	5000 - 0.083	7750 - 0.075
2500 - 0.091	5250 - 0.082	8000 - 0.074

at Sea level. If your Intoximeters tank is moved from one location to another and there is **MORE THAN A 250 FOOT ELEVATION CHANGE**, then determine the new elevation from the left column. Then move across the top row to the right column to determine the new value of your Intoximeters tank.

INTRODUCTION

The Intox EC/IR II is manufactured by Intoximeter, Inc. in St. Louis, Missouri.

NOTE: The information provided herein is not designed to make the operator an expert on the Intoximeter EC/IR II. It is to provide an understanding of what is happening inside the instrument so that the operator will be able to determine when the instrument is or is not operating properly.



METHODOLOGY

When obtaining a breath sample, the Arkansas Rules for Alcohol Testing require a minimum of a twenty-minute observation period be conducted. The purpose of this observation period is to allow for any residual mouth alcohol to evaporate, so that upon obtaining a breath sample, any alcohol concentration shown will be from a deep lung sample, and not residual alcohol. This observation period is also a deprivation period. The subject to be tested is not to be allowed to take anything by mouth and the mouth must be free of food, tobacco, gum etc. as well, and should be observed for any signs of wet-belching or regurgitation that could potentially re-contaminate the mouth. If this is observed, a new twenty-minute observation should be conducted.

The Intox EC/IR II employs two distinct analytical techniques to measure alcohol concentration. The EC/IR II uses a fuel cell (electro chemical) sensor and an infrared sensor. The instrument uses both of these techniques because each offers different advantages to the sampling process.

The fuel cell sensor is specific to alcohol. It is a linear sensing device and can be calibrated with a simple one-point calibration ensuring stable calibration across the full range of its sensing capabilities. These features make this analytical device ideal for quantifying alcohol.

The IR sensor has several capabilities that the fuel cell sensor does not possess. The most important of these is that the IR sensor is able to make continuous determinations of alcohol concentration thus allowing the Intox EC/IR II to monitor a breath sample in near real time. While the IR sensor does not measure the sample to quantify the alcohol results, it helps determine if the breath sample is acceptable (no residual mouth alcohol and at what point to trigger the fuel cell to take a sample).

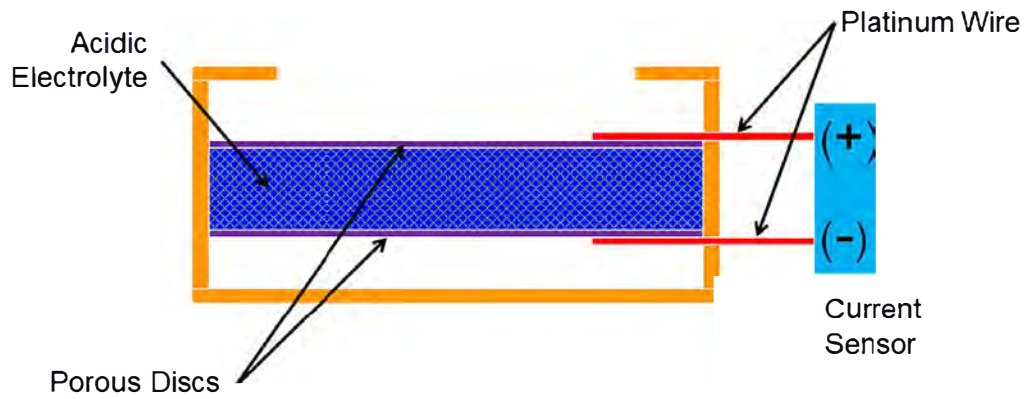
In combination, these two analytical systems provide all the necessary information to make precise and accurate determinations of breath alcohol concentration. This sample is one made up of deep lung breath, not a shallow breath sample or one tainted residual alcohol from the upper respiratory tract of the subject.

BREATH SAMPLE VOLUME

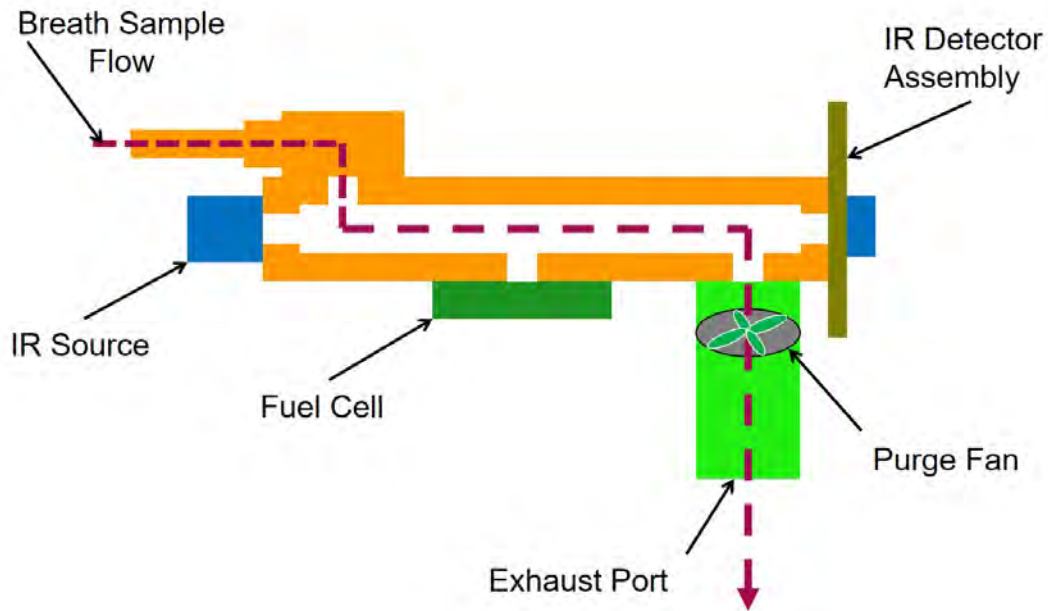
The breath sensing system in the Intox EC/IR II requires that sampling take place at the end of an exhalation if enough breath has been given to reach deep lung breath. The flow rate of the breath through the instrument is monitored continuously, and the microprocessor accumulates an integral of flow rate. Before reaching the required minimum volume, any reduction or cessation of flow rate causes the instrument to stop the test. The subject is then required to provide another breath sample. After the subject has provided the minimum volume, the instrument does not initiate an automatic sample until a reduction in breath flow signifies the approaching end of expiration. At that instant, the instrument takes a breath sample.

NOTE: A minimum volume of 1500cc at a constant pressure is required.

Fuel Cell Assembly

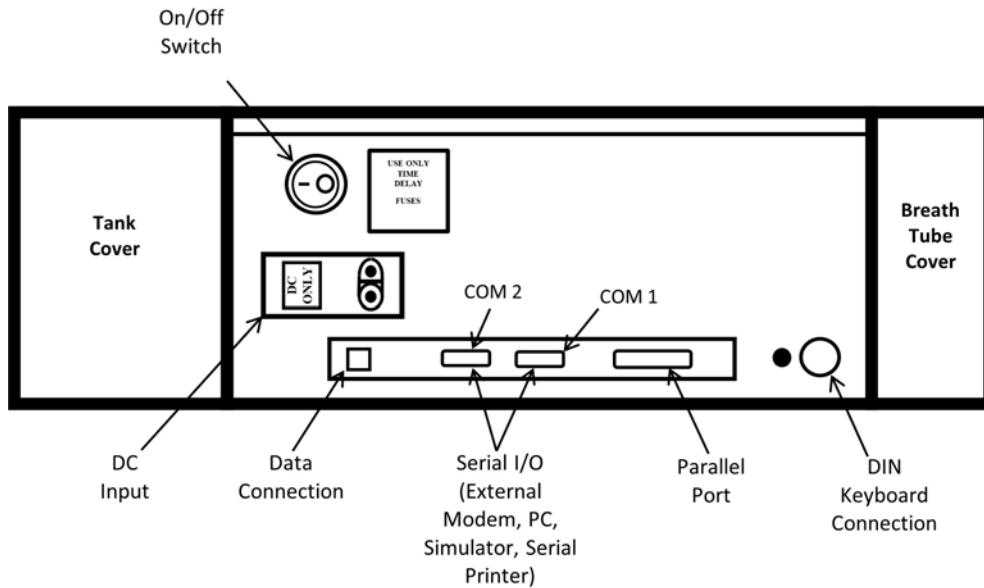


I/R Bench Assembly

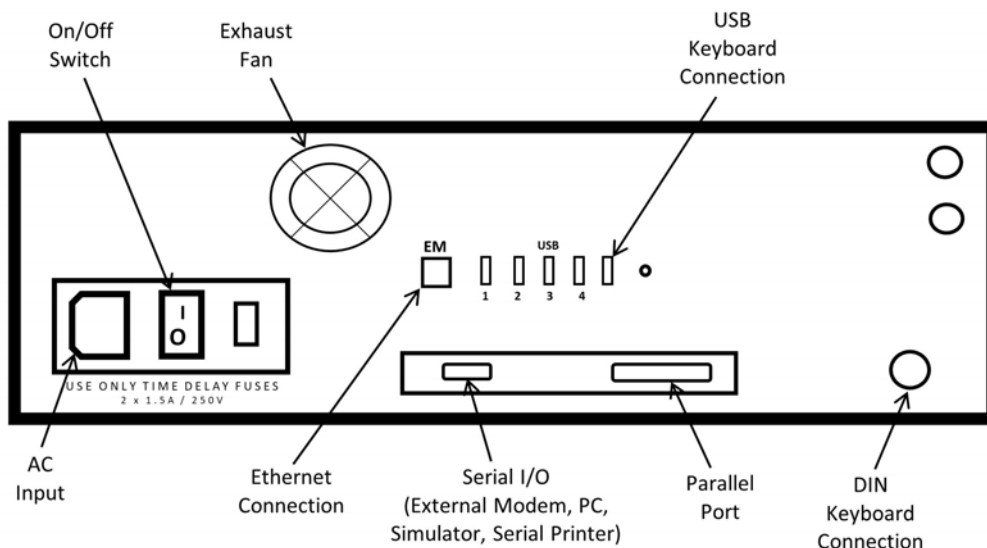


EXTERNAL COMPONENTS OF THE EC/IR II

Transportable Version
Rear-Panel Connections and Controls

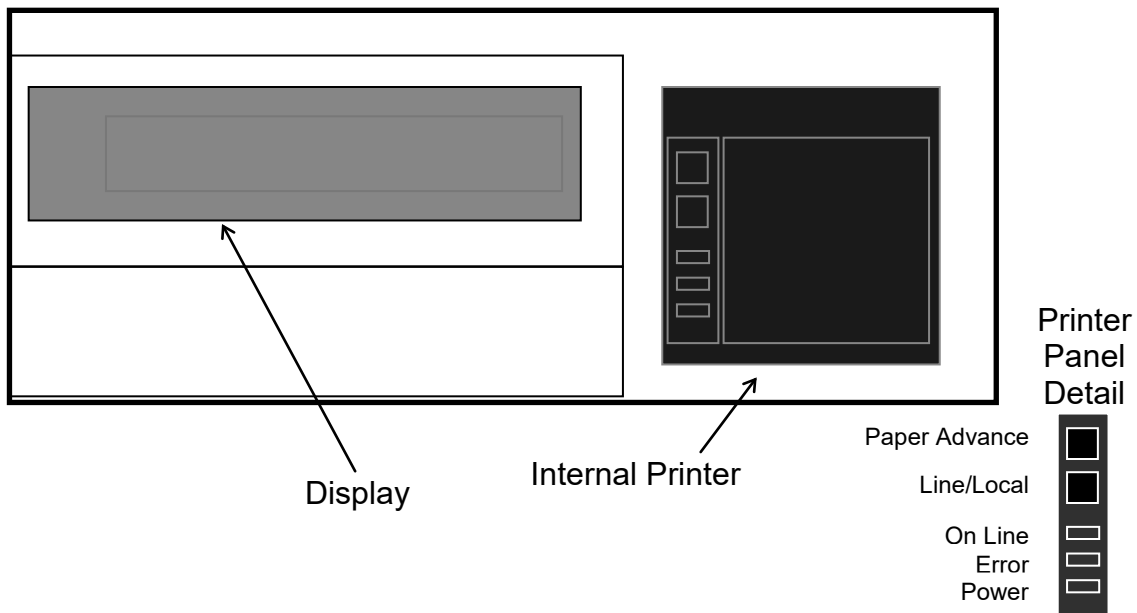


Desktop Version
Rear Panel Connections and Controls



FRONT PANEL AND KEYBOARD CONTROLS AND INDICATIONS

The Intox EC/IR II has two primary components: the analytical instrument itself, contained in a single cabinet that also houses a thermal printer, and a detachable keyboard. Except for advancing paper, operator commands from the keyboard control all instrument functions. A two-line display provides operator instructions and status information. Indicators on the built-in printer light when the instrument is on and also show off line/on line status.



Note: These lights are associated only with the Internal Printer and have nothing to do with the Instrument

THE TWO-LINE DISPLAY

This display shows operating conditions, menu selections, on-line help, and measurement results. The default display after an initial warm-up period lists such things as date and time of day, instrument serial number, and an instruction to press the keyboard Enter key to start a subject test, as well as any warnings about tank pressure, tank expiration or if the instrument is disabled for any reason.

THE KEYBOARD

The Intox EC/IR II is equipped with a smaller AT-compatible keyboard, which is functionally equivalent to a standard keyboard. A larger standard keyboard may be used if desired.



Note: Desktop Instruments have both PS2 and USB keyboard connections

EXTERNAL PRINTER CONTROLS AND DISPLAYS

Refer to the User's Manual on the instructions and proper use of the external printer. Should the external printer become inoperable, the Operator can switch the instrument between external and internal printer by pressing Ctrl-P.



Other compatible printers may be used. Intox has reported that not all printers are compatible, they must be PCL5 or lower. Some network printers are an option with the upgraded EC/IR's.

INTERNAL PRINTER CONTROLS AND DISPLAYS

The built-in printer has two push-buttons and three indicators:

The **PAPER ADVANCE** push-button advances paper out of the printer when it is Off Line. Press the **LINE/LOCAL** push-button until the **ON LINE** indicator goes off. Then, hold down the **PAPER ADVANCE** push-button until you have advanced the required amount of paper. Be sure to put the printer in on line mode before starting subject tests.

The **LINE/LOCAL** push-button takes the printer off and on line when pressed. When off line, the **ON LINE** indicator goes out.

The **ON LINE** indicator lights when the printer is ready to print results.

The **ERROR** indicator lights when the instrument is first turned on, or when there is a printer fault: paper empty, door open, over-voltage or under-voltage condition, or print head over-temperature.



Note: The internal printer uses thermal paper. If not inserted with the correct side up, it will not print. Also thermal ink will fade over time, so this should be avoided for permanent records.

CAUTION: Do not place anything containing liquids on the instrument's top cover. This includes coffee cups and soft drink containers.

UNINTERRUPTED POWER SUPPLY (UPS)

The EC/IR II ***must*** be plugged into the "Battery Side" of a UPS device. **DO NOT** use a standard surge suppressor. **The external printer should not be connected the battery side of the UPS, but to the surge side of the UPS or a separate surge protector.**

Recommended size: 250-500 VA UPS. This may be obtained from any electronics store.

EXTERNAL CARD READER

In Arkansas, the EC/IR II is equipped with an external card reader. In order for the Senior Operator, or Operator, to initiate any type of a test, an operator card must be scanned through the card reader to begin the test sequence. Also, if the subject being tested has a driver's license, the driver's license may be scanned in order to enter the necessary information. If a driver's license is not available, the information may be entered manually using the attached keyboard.



There are currently two models of card readers. The model M-200 above can only read the 2D barcode on an operator card or drivers license. The model M210 below can also read the magnetic strip that may be on some out of state licenses or ID cards. The barcode must be facing the direction indicated by the arrow on the reader.



TEST SEQUENCES AND PROCEDURES

INITIATING A SUBJECT TEST

The Arkansas Rules for Alcohol Testing require that a subject be observed for “no less than twenty (20 minutes prior to a test” (see section **4-2**).

To initiate a subject test on the EC/IR II, simply press the “ENTER” key and follow the on screen instructions:

Press “ENTER” and you will be prompted to:

SWIPE CARD

The operator card should be scanned according to the diagram on the card reader. The instrument is programmed so that you may only access those functions available for your level of certification.

If an operator’s certification has been revoked or suspended for any reason, the instrument will not accept the card and you may not access any functions.

If an operator loses their card, they may not access any functions nor run a test. Agencies are responsible for prompt notification upon termination of employment. The Office of Alcohol Testing should be contacted to report the loss of any card. **Never loan your card or borrow someone else’s card! If you do, you and the other operator will be decertified and reported to agency supervisors.**

Upon scanning the operator card, the operator’s name and certification number will automatically be shown on the printed ticket.

After scanning your card you will then be prompted:

ENTER PIN

Enter the PIN number assigned to you then press return. Should the PIN number be misplaced or forgotten, contact the Senior Operator in Charge. They are provided with a PIN list quarterly.

The instrument will then display:

EMPLOYED BY:

Enter the place of employment of the operator conducting the test.

Press ENTER. The instrument will then display:

DATE OBSERVATION BEGAN: MM/DD/YYYY

Enter the date that the twenty minute observation began.

The instrument will then display:

TIME OBSERVATION BEGAN: HH:MM

Enter the time at which you began the twenty-minute observation. Time must be entered in twenty-four hour (military time) format.

NOTE: If the time entered is less than twenty minutes from the current time, at the completion of data entry, the instrument will give a countdown to the time at which it is acceptable to test the individual.

Press Enter.

The instrument will then display:

TRAFFIC RELATED: Y/N

Enter Y for Yes or N for No. Press Enter.

If the answer is "No", the instrument will prompt:

JUVENILE (Y/N)

If you answer YES to this prompt, the instrument will automatically insert the word "JUVENILE" for the name since the juvenile is protected under the Freedom of Information Act if the offense is NOT traffic related. In this case you will log "Juvenile" in the log book and not their name.

If the incident is traffic related, the juvenile question is skipped.

Press ENTER and the instrument will prompt for the driver's license to be swiped. If the subject has a driver's license or state issued identification card, swipe it according to diagram on the card reader and the subject's name, driver's license number, birth date, and state of issuance will be automatically entered.

If the individual does not have a driver's license or ID card, press ENTER and manually type in all requested information. If information requested is unavailable, pressing enter will leave that section blank.

If the driver's license is read, the instrument will display:

SUBJECTS LAST NAME: LLLLLLLLLL

Press ENTER and the instrument will display:

SUBJECTS FIRST NAME: LLLLLLLL

Press ENTER and the instrument will display:

SUBJECTS MIDDLE INITIAL: L

Press Enter and the instrument will then display:

DATE OF BIRTH: MM/DD/YYYY

You must enter the four-number designator for the year. If the birth date cannot be determined, the instrument will allow you to skip this question by pressing ENTER.

Press ENTER and the instrument will display:

DRIVER'S LICENSE NUMBER:NNNNNNNNNN

The instrument will allow for entry of up to 23 alpha and numeric characters in this field. If a driver's license or identification card was scanned, the numbers will automatically be entered. If the individual has a driver's license but it is not available, the number may be manually entered. If the individual does not have a driver's license, press ENTER to skip this question. If the individual has a suspended or revoked DL, enter the information anyway. When manually entering the DL or ID number, omit any dashes or spaces.

Press ENTER and the instrument will display:

STATE OF ISSUANCE: LL

This prompt is for the state of issuance of the driver's license. If manually entering data, simply enter the two letter postal code abbreviation for the state of issuance (AR for Arkansas, TX for Texas, MO for Missouri, etc.). If the individual does not have a driver's license, simply press ENTER to skip this question.

Press ENTER and the instrument will display:

SUBJECT INVOLVEMENT: DRIVER/PASSENGER/PEDESTRIAN

Use the "space bar" to toggle between the options of Driver, Passenger, or Pedestrian

Press ENTER and the instrument will display:

DATE OF INCIDENT: MM/DD/YYYY

Enter the date the incident occurred and again enter all four numbers of the year.

Press ENTER and the instrument will display:

TIME OF INCIDENT: HH:MM

Enter the time at which the incident occurred in twenty-four hour format (military time).

Press ENTER and the instrument will display:

COUNTY: LLLL

Enter the first four letters of the county where the incident occurred with the following exceptions: **Lee** for Lee County, **Hot** for Hot Spring County, **Van** for Van Buren County, and **STFR** for St. Francis County.

Press ENTER and the instrument will display:

ACCIDENT : Y/N

If the answer to this question is No, press ENTER and the instrument will eliminate the following questions.

If Yes, press ENTER and the instrument will display:

INJURY: Y/N

then

FATALITY: Y/N

Press ENTER and the instrument will display:

REQUESTED BY: (L/S/D/O)

Enter L for Law Enforcement if law enforcement is requesting the test, S for Subject if it is a subject requested test, D for DOT if it is a Department of Transportation requested test, and O for other if it does not meet any of the preceding criteria (court ordered, probation/parole, etc.) or use the space bar to toggle between the options.

Press ENTER and the instrument will display:

STARTING TEST SEQUENCE SPACE= BEGIN ENTER=VERIFY

The instrument will prompt to Press Enter to verify or review your information, or press the space bar to continue with the test. Review all information at least once and make corrections as necessary. To make a correction, simply re-type the data. Upon completion press the space bar and the instrument will begin the automatic test procedure.

AUTOMATIC TEST PROCEDURE

After all information has been entered and the SPACE bar pressed, the EC/IR II will assign a test number to the test, which upon printing will appear in the upper portion of the test record. The instrument will then conduct a short diagnostic test to ensure that all components are functioning properly. The result of this diagnostic test is shown on the ticket as pass or fail.

If all components are functioning properly, the instrument purges itself to make sure there are no contaminants in the system or around the EC/IR II, then performs a blank check and performs the external standard check, testing a sample of the dry gas standard. As long as the external standard is within $+0.003$ and -0.007 of the target value, the instrument will continue the test. If the external standard is outside of this range, the instrument will abort the test and a Senior Operator should be contacted. They will need to perform a Supervisor Test before any other tests can be run.

After analyzing the dry gas standard, the instrument will purge itself in order to cleanse the system.

After checking for a blank sample, the instrument proceeds to "Please Blow." At this time the breath tube should be prepared for the subject to blow into.

TAKING THE BREATH SAMPLE

Taking a clean mouthpiece, tear the plastic away from the mouthpiece, and using the plastic to hold it, place the mouthpiece onto the breath tube, and present it to the subject to blow into. Instruct the subject to blow steadily and continuously into the mouthpiece until instructed to stop. If the subject is refusing to provide the sample, simply press "R" during anytime of the "Please Blow" sequence to generate a refused test record. If no input is attempted within 3 minutes, the display will prompt: **REFUSAL (Y/N)**, Pressing "Y" will produce a refusal ticket. Pressing "N" will produce a "Breath Timeout" result.

A solid tone will be present as the subject blows if an adequate sample is being provided. Two bars will show on the display while the subject is blowing. The top bar indicates the flow rate and pressure, while the bottom bar indicates the volume of the sample. If steady pressure is not maintained or too little volume is provided, the instrument will stop the sample attempt and display "Insufficient Sample". After purging, the instrument will provide another opportunity to obtain a sample. If insufficient sample is obtained three times in succession, the instrument will abort the test.

Note: Only 1500cc volume at a constant pressure is required.

After the instrument has accepted the sample, **IMMEDIATELY** remove the mouthpiece from the breath tube and discard it. A clean mouthpiece must be used for each sample attempt.

The instrument will analyze the first sample, purge, and conduct a blank test. It then will display a clock indicating the amount of time remaining before obtaining the second sample. There will be a minimum of two minutes between the two breath samples.

When prompted again to "Please Blow," follow the previous instructions for obtaining a sample. **Use a clean mouthpiece for each sample.** If the subject refuses to provide the second sample, press "R" for refused. Two completed samples are required for a completed test.

After analyzing the second sample, the instrument takes the two sample results and reports the lower of the two samples as the alcohol result, as long as the two samples are within .020 of each other. If the samples are greater than .020 of each other, the instrument will show "Results not Within .020 Re-Test," and abort the test. A new test sequence may be immediately may be initiated.

When the test sequence is completed, the instrument will display "Database Update: Success" to show that the test record has been saved to the instrument's database.

After the test is completed, the printer will produce three copies of the test record. There will be three places requiring signatures at the bottom of the test record:

1. **Operator Signature:** Requires the instrument operators signature.
2. **Observed By:** Requires the signature of the person who conducted the 20 minute observation.
3. **Rights Given By:** Requires the signature of the person who advised the subject of the Implied Consent Rights

After completing the test, the test must be logged in the logbook. **The test number will be listed in the header of the ticket and should be logged exactly as it appears on the ticket.** This allows for producing a copy of the test record at a later date if needed.

The "**Final Result**" and "**Final Result Time**" found at the bottom of the test record should be logged for the time of test and test result. If the record does not indicate "SUCCESS" then the Final Result will be N/A and should be logged as the result in the log book. Note: If the Instrument produces a record, it must be logged in the book. What ever the record states something other than "Success" ie. Test Refused, Invalid Sample, Insufficient Sample etc. Log that in the "Remarks" column in the log book.

Good Test Example

Intox EC/IR-II: Subject Test

Installation Certificate Number:

State of Arkansas
AR DEPT OF HEALTH
OAT

Serial Number: 010700 Test Number: 862
 Test Date: 06/20/2011
 Operator's Name: Doe, John B
 Operator's Certification No.: 00099
 Place of Employment: ADH
 Date Observation Began: 06/20/2011
 Time Observation Began: 13:00
 Traffic Related: Yes
 Subject's Name: SMITH, SALLY R
 Subject's Date of Birth: 06/10/1960
 Driver's License Number: 957013856
 State of Issuance: AR
 Subject Involvement: Driver
 Date of Incident: 06/20/2011
 Time of Incident: 12:00
 County Occurred: JEFF
 Accident: No
 Injury Involved: N/A
 Fatality Involved: N/A
 Requested By: Law
 Dry Gas Target: .098
 Lot Number: AG113901 Exp Date: 05/19/2013
 Tank Pressure: 61 psi

Test	g/210L	Time
DIAG	Pass	13:32
BLK	.000	13:33
STD	.100	13:34
BLK	.000	13:35
SUBJ	.074	13:36
BLK	.000	13:37
SUBJ	.074	13:39
BLK	.000	13:40

Smpl	Durn	Vol	Time
#	(sec)	(cc)	
1	6.36	2035	13:36
2	5.65	1690	13:39

Success

Final Result Time: 13:39 CDT
Final Result: .074

Operator Signature

John B Doe

Observed By:

John B Doe

Rights Read By:

John B Doe

Results Not Within .020

Intox EC/IR-II: Subject Test

Installation Certificate Number:

State of Arkansas
AR DEPT OF HEALTH
OAT

Serial Number: 010700 Test Number: 859

Test Date: 06/20/2011

Operator's Name: Doe, John B

Operator's Certification No.: 00099

Place of Employment: ADH

Date Observation Began: 06/20/2011

Time Observation Began: 11:20

Traffic Related: Yes

Subject's Name: SMITH, SALLY R

Subject's Date of Birth: 06/10/1960

Driver's License Number: 957013856

State of Issuance: AR

Subject Involvement: Driver

Date of Incident: 06/20/2011

Time of Incident: 11:50

County Occurred: JEFF

Accident: No

Injury Involved: N/A

Fatality Involved: N/A

Requested By: Law

Dry Gas Target: .098

Lot Number: AG113901 Exp Date: 05/19/2013

Tank Pressure: 71 psi

Test	g/210L	Time
DIAG	Pass	12:52
BLK	.000	12:53
STD	.100	12:53
BLK	.000	12:54
SUBJ	.078	12:56
BLK	.000	12:57
SUBJ	.039	12:59
BLK	.000	13:00

Smpl #	Durn (sec)	Vol (cc)	Time
1	4.97	1832	12:56
2	5.28	1746	12:59

Results Not Within .020 - Retest

Final Result Time: 13:00 CDT

Final Result: N/A

Operator Signature

John B Doe

Observed By:

John B Doe

Rights Read By:

John B Doe

Test Refused

Intox EC/IR-II: Subject Test

Installation Certificate Number:

State of Arkansas
AR DEPT OF HEALTH

OAT

Serial Number: 010700 Test Number: 858
Test Date: 06/20/2011
Operator's Name: Doe, John B
Operator's Certification No.: 00099
Place of Employment: ADH
Date Observation Began: 06/20/2011
Time Observation Began: 12:10
Traffic Related: Yes
Subject's Name: SMITH, SALLY R
Subject's Date of Birth: 06/10/1960
Driver's License Number: 957013856
State of Issuance: AR
Subject Involvement: Driver
Date of Incident: 06/20/2011
Time of Incident: 11:40
County Occurred: JEFF
Accident: No
Injury Involved: N/A
Fatality Involved: N/A
Requested By: Law
Dry Gas Target: .098
Lot Number: AG113901 Exp Date: 05/19/2013
Tank Pressure: 75 psi

Test	g/210L	Time
DIAG	Pass	12:43
BLK	.000	12:43
STD	.101	12:44
BLK	.000	12:45
SUBJ	***	12:45

Test refused

Final Result Time: 12:46 CDT

Final Result: N/A

Operator Signature



Observed By:



Rights Read By:



Subject Blew First Sample Then Refused Second Sample

Intox EC/IR-II: Subject Test

Installation Certificate Number: 001

State of Arkansas
AR DEPT OF HEALTH
OAT

Serial Number: 010690 Test Number: 156

Test Date: 07/02/2009

Operator's Name: Administrator, Adam A

Operator's Certification No.: POLLYWOG

Place of Employment: ADH

Observation Began: 13:00

Traffic Related: Yes

Juvenile: No

Subject's Name: SAMPLE, HARVEY

Subject's Date of Birth: 01/15/1948

Driver's License Number: 999041683

State of Issuance: AR

Subject Involvement: Driver

Date of Incident: 07/02/2009

Time of Incident: 12:00

County Occurred: JEFF

Accident: No

Injury Involved: N/A

Fatality Involved: N/A

Requested By: Law

Dry Gas Target: .099

Lot Number: AG802101 Exp Date: 01/20/2010

Tank Pressure: 811 psi

Test	g/210L	Time
DIAG	Pass	13:59
BLK	.000	14:00
STD	.092	14:01
BLK	.000	14:01
SUBJ	.169	14:02
BLK	.000	14:03
SUBJ	.***	14:04

Smpl #	Durn (sec)	Vol (cc)	Time
1	3.65	1676	14:02

Test refused

Final Result Time: 14:05 CDT

Final Result: N/A

Do NOT log result of first sample!

Operator Signature

John B Doe

Observed By:

John B Doe

Rights Read By:

John B Doe

PRACTICE TESTS AND DEMONSTRATIONS

It is recommended, in order to maintain proficiency with the instrument, that operators periodically perform a practice test if not testing regularly. Also, should it become necessary, it is permissible to perform a demonstration test on the instrument (i.e., judges, prosecutors, etc.).

To perform a demonstration or practice test, initiate a subject test as normal.

When prompted to swipe the driver's license, press ENTER.

When prompted for "Last Name" type the word TEST. Press ENTER.

When prompted for "First Name" type the word TEST. Press ENTER.

Press ENTER to skip "Middle Initial."

Press ENTER to skip "Driver's License", "State of Issuance", and "Date of Birth".

Enter other information as necessary.

Upon completion, make the appropriate log entry, using the word TEST for the subject's name, and note in the Remarks column that it was a practice or demonstration test.

File a copy of the ticket.

COPY

An operator may produce a copy of the last test performed on the instrument by pressing "P" on the keyboard, then pressing the space bar when prompted.

When producing a copy, it is not to be recorded in the logbook. To obtain a copy of any test other than the last test, contact a Senior Operator.

STATUS MESSAGES DISPLAYED BY THE INTOXIMETER EC/IR II

MESSAGES DISPLAYED ON SUBJECT TESTS

The Intoximeter EC/IR II will invalidate a printed record of the test when any condition is not acceptable. The instrument does this by aborting the test in progress, displaying a message on the LCD display, and printing a message on the test record. The instrument is following proper operating procedure when it does this. There are specific status messages that can be displayed on a subject test, proficiency test, or supervisor test.

Anytime the test is aborted, any alcohol results shown on the ticket are not evidential / permissible and the subject must be re-tested to obtain results.

INSUFFICIENT SAMPLE

When obtaining a subject sample, the EC/IR II displays two bar graphs on the display. The bottom indicates the volume of the sample, and the top indicates the flow/pressure. If there is a drop in pressure or the subject stops blowing before the sample volume is met, the instrument will stop the sample attempt and display "Insufficient Sample". The instrument will the purge and return to "Please Blow" for another attempt. If an insufficient sample is obtained three times in succession, the instrument will display "Insufficient Sample Test Aborted" and print the test record which must be entered in the logbook. Each sample attempt will be shown on the test record indicating the duration and volume each attempt. This along with the operators observations can be used to demonstrate whether the subject is making a valid attempt to complete the test, or is refusing to comply with the given instructions.

The subject can then be retested on the Intoximeter or offered another type of test (ie. Urine or Blood), or appropriately charged.

Insufficient Sample

Intox EC/IR-II: Subject Test

Installation Certificate Number:

State of Arkansas
AR DEPT OF HEALTH
OAT

Serial Number: 010700 Test Number: 860

Test Date: 06/20/2011

Operator's Name: Doe, John B

Operator's Certification No.: 00099

Place of Employment: ADH

Date Observation Began: 06/20/2011

Time Observation Began: 12:30

Traffic Related: Yes

Subject's Name: SMITH, SALLY R

Subject's Date of Birth: 06/10/1960

Driver's License Number: 957013856

State of Issuance: AR

Subject Involvement: Driver

Date of Incident: 06/20/2011

Time of Incident: 12:00

County Occurred: JEFF

Accident: No

Injury Involved: N/A

Fatality Involved: N/A

Requested By: Law

Dry Gas Target: .098

Lot Number: AG113901 Exp Date: 05/19/2013

Tank Pressure: 71 psi

Test	g/210L	Time
DIAG	Pass	13:04
BLK	.000	13:04
STD	.100	13:05
BLK	.000	13:06
SUBJ	.***	13:08

Smpl #	Durn (sec)	Vol (cc)	Time
1	0.87	375	13:07
2	1.47	580	13:08
3	2.48	987	13:08

Insufficient sample

Final Result Time: 13:09 CDT

Final Result: N/A

Operator Signature

John B Doe

Observed By

John B Doe

Rights Read By:

John B Doe

DISPLAY	CAUSE	ACTION
Result Not Within .020 – Retest	Sample results outside of .020, and the results are invalid.	Retest the individual.
High Blank Check Ambient	Instrument is detecting unsatisfactory ambient conditions.	Check for causes such as used mouthpiece on breath tube, cleaning solutions present, strong odor of intoxicants on subject, paint fumes, etc. and remove if possible. Purge "F" then retest.
I.R. Source Fail		Retest, if repeated contact OAT Lab.
Invalid Sample	May indicate Mouth alcohol	Wait 20 minutes then retest.
Result over Range	The subject has registered in excess of .440	Seek medical treatment.
Breath Timeout	Time limit has been exceeded. (3 minutes)	Retest
Check ambient Conditions	Breath sample provided too early or unacceptable ambient conditions	Attempt retest, following prompts.
Standard out of Range	The external standard check has measured outside of the +.003 through -.007 range of the target value.	Contact OAT Lab if repeated.
Insufficient Sample	The subject either provided insufficient pressure or insufficient volume to satisfy the sampling requirements of the instrument	Up to operator to retest or charge accordingly.
RFI	Radio Frequency Interference was detected	Retest and contact OAT lab
Diagnostic Test Failed	Failure condition detected during system diagnostic test	Contact OAT Lab if repeated.

Breath at Improper Time	Air flow detected during any portion of test other than "Please Blow"	Retest
Dry Gas Tank Expired	Dry Gas Standard has reached expiration date	Contact OAT Lab
Exceeds Maximum Flow	Too much pressure from suspect sample	Retest
Deficient Sample	In the 3 minutes allotted to provide a sample, regardless of the number of attempts, no sample was provided which met the minimum volume, AND when prompted to respond to "Refusal? Y/N" the operator selected "N" for NO	Retest, offer alternative test, or charge accordingly
Dry Gas Tank Empty	Tank pressure is below 50 psi	Contact OAT Lab
Dry Gas Pressure Low	Tank pressure is below 100 psi	Contact OAT Lab
Dry Gas Std Malfunction	An error has occurred with the dry gas standard	Contact OAT Lab
Printer not Ready	Check to make sure printer has power and is on line	
Flow in IR System		Contact OAT Lab
Flow Baseline Error		Contact OAT Lab
I.R. Source	I/R source malfunction	Contact OAT Lab.
Ethanol Baseline Error		Retest/Contact OAT Lab if repeated
CO2 Baseline Error		Retest/Contact OAT Lab if repeated
Sample Solenoid Error		Contact OAT Lab
Calibration Error		Contact OAT Lab
Set Solenoid Error		Contact OAT Lab
IR Delta too High		Contact OAT Lab

SAMPLE LOG SHEET

COL.1	COL.2	COL.3	COL.4	COL.5	COL.6	COL.7
TEST NO.	DATE	SUBJECT NAME (L/F/MI)	TIME OF TEST	BREATH RESULTS g/210 L	PRINT NAME AND NUMBER OF OPERATOR/ARRESTING OFFICER	CHARGE/REMARKS
2698	8/28/12	Sample, Harvey O.	16:27	.16	Ken Doit / 104	DWI
2699	8/29/12	Thyme, Justin R.	22:08	N/A	Reah Pete 111 / A. Gann 321	INVALID SAMPLE
2700	8/29/12	Thyme, Justin R.	22:30	.06	Reah Pete 111 / A. Gann 321	DWI / CDL driver
2701	8/31/12	Proficiency Test	08:45	.18	U. C. Howe 103	Sample # .18A
2702	8/31/12	Supervisor Test	09:30	AVG .099	U. C. Howe 103	Target value .101
2703	8/31/12	Diagnostic Check	09:41	PASS	U. C. Howe 103	
2704	9/5/12	Dover, Ben	18:56	.32	Ware 122 / Green 327	DWI
2706	9/17/12	Amuck, Ron	18:20	.18	NA Hurry 211 / IM Green 327	DWI
2707	9/17/12	Amuck, Ron	18:27	.17	NA Hurry 211 / IM Green 327	Subject requested
2708	9/19/12	Smaht, Natu	19:24 19:22	N/A	Brett Aliser 1387	DWI / Refused