Maine Criminal Justice Academy

15 Oak Grove Road
Vassalboro, ME 04989

Breath Testing Device Operation and Certification

Student Manual

7/2016

The term Breath Testing Device (BTD), as used in this manual, refers to both the Intoxilyzer 8000 (I-8000) and the Intoxilyzer 5000EN (5000EN). The terms are interchangeable and intend to identify the current breath testing instruments being used in Maine for collecting breath samples for evidentiary purposes.

A Breath Testing Device (BTD) Operator is a person certified by the Maine Criminal Justice Academy (MCJA) to operate both the I-8000 and the 5000EN for collecting breath samples for evidentiary purposes.

The term Instrument as used in this manual refers to either the I-8000 or 5000EN unless otherwise specifically noted.

ACKNOWLEDGEMENTS

The Academy appreciates all the professionals who contributed to the original development of the Intoxilyzer program in Maine. Their work created a sound foundation from which we continue to strengthen the program.

It is with the support of the Maine Bureau of Highway Safety (MeBHS) and Director Lauren Stewart that the program continues to excel. With the assistance of MeBHS, Maine's Intoxilyzer breath-testing sites have transitioned from the Intoxilyzer 5000-EN to the Intoxilyzer 8000. The MeBHS funding of training initiatives, supplies, program and equipment upgrades, along with the staff at the Department of Health and Environmental Testing Laboratory (HETL), is sincerely appreciated and necessary for the continued success of the program.

Thanks to Mr. Robert Morgner, chemist and Breath Testing Program Administrator at the Maine Health and Environmental Testing Laboratory. Mr. Morgner's background and experience with the breath testing program has been crucial to the program. His continued professional oversight ensures that our high standards will be maintained into the future.

Special thanks are due to the following instructors for their hard work and oversight in the Breath Testing program and for their work on the program upgrades. As senior instructors, they have worked diligently to improve program standards and ensure that the Breath Testing Device (Intoxilyzer training at the academy meets those standards. The continued support of their agencies has made it possible for them to provide oversight for the program:

Sergeant Don Finnegan of the Rockland Police Department.

Officer Robert Libby of the South Portland Police Department,

Sergeant Douglas Maifeld of the Rumford Police Department,

Scot Mattox, Esq. Traffic Safety Resource Prosecutor, MeBHS

Detective William Scull, retired, Presque Isle Police Department, and

I would also like to thank the certified Breath Testing Device (BTD) instructors and site coordinators for their work in keeping our program standards consistent. Without the diverse network of these officers, it would not be possible to maintain our certification standards statewide.

As a group, we are all working to provide the best possible training and experience for the BTD operator. The continued success of this program as well as impaired driving programs overall, ultimately rests with the ability of the BTD operator and the investigating officer.

James A. Lyman, MCJA Training Supervisor, Impaired Driving Programs

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Section 1 – Introduction

Breath Testing Device Operation and Certification Course
Goals and Performance Objectives

GOAL-

The goal of the Breath Testing Device (BTD) Operation and Certification Course is to provide students with the knowledge and skills required to obtain certification as a BTD operator. The course will provide an overview of the theory of breath testing, how alcohol interacts with the body, administrative procedures, legal issues and instrument components and testing procedures for the I-8000 and 5000EN.

PERFORMANCE OBJECTIVES-

At the end of this unit of instruction the student will be able to:

1.1.1 List the MCJA BTD certification and re-certification requirements

1.1.2 Explain the 3 Pharmacological aspects of Alcohol

1.1.3 Explain common Physiological aspects of Alcohol

1.1.4 Explain the concept of "Henry's Law" and the "Lambert Beer Law"

1.1.5 Identify major instrument components of the I-8000 and 5000EN

1.1.6 Identify major printer components on the Lexmark E260d and HP 1100

1.1.7 Demonstrate the standardized operating procedures for the I-8000 and 5000EN

1.1.8 Identify the standard display messages and tones on the I-8000 and 5000EN

1.1.9 Identify common exception messages on the I-8000 and 5000EN

1.1.10 Identify common Administrative Procedures for breath testing

1.1.11 Identify common legal issues surrounding evidential breath testing

1.1.12 Demonstrate the proper administration of subject tests.

Students must pass a written exam with 80% accuracy and demonstrate proficiency with the I-8000 instrument (Agencies that do not have an I-8000 may borrow one from the MCJA for use in completing training practicals).

Program Authority

The Maine Bureau of Highway Safety (MeBHS) is the entity responsible for the oversight of blood and breath alcohol testing in the State of Maine.[1] MeBHS has contracted with the Health and Environmental Testing Laboratory (HETL) within the Department of Health and Human Services, for administration of the blood and breath testing programs. The HETL ensures that statewide quality assurance and operational standards are adhered to within the testing programs. The HETL has established rules governing the guidelines for testing procedures which are included in the manual.

There are approximately 85 Intoxilyzer 8000 instruments and several Intoxilyzer 5000EN instruments at law enforcement agencies statewide. The HETL staff physically checks the calibration and condition of each instrument twice each year and attaches an updated approval stamp to the instrument. From the HETL, staff can electronically download data from all instruments into their database each week to track statewide tests administered and check quality of data entered. This information is used to generate monthly reports for the MeBHS and the Maine Bureau of Motor Vehicles (MeBMV) who uses the data on OUI arrests for statistical purposes. The HETL staff works closely with many other agencies statewide to assist in training, problem solving, testifying in court, and program insight.

The Maine Criminal Justice Academy (MCJA) is responsible for setting certification and training standards for BTD operators and instructors.[2] The MCJA offers certification training for all basic law enforcement training programs (BLETP) and utilizes a group of approximately 70 certified instructors statewide to conduct certification and re-certification courses on and off site. Anyone performing an evidentiary test with the instrument must hold an active operator certification.

[1] 29-A M.R.S.A § 2524 (6)
[2] 29-A M.R.S.A § 2524 (3)

BREATH TESTING DEVICE TRANSITION

In 2012, the Maine Bureau of Highway Safety (MeBHS), began replacing the existing Intoxilyzer 5000EN (5000EN) with a newer model Intoxilyzer 8000 (I-8000). The Maine Criminal Justice Academy (MCJA), with assistance from senior program instructors, developed several new training programs to ensure that operators received proper training in the use of the new instruments.

On December 31, 2012 the MCJA ended Intoxilyzer training and transitioned to the new Breath Testing Device (BTD) training program. Intoxilyzer operators remained certified until their current certification expired. The last group of Intoxilyzer Certifications expired on 12-31-2015. The new BTD material was developed in several formats.

1: Instructor Training: In November 2012, the MCJA held a Train the Trainer class for senior Intoxilyzer instructors. These instructors conducted statewide training for our cadre of 70 instructors. Instructors that attended this training received a certification as BTD Instructors and would be responsible for training all operators on the I-8000.

2: Transition Training: In January 2013, BTD Instructors began transition training for operators that had an active Intoxilyzer Certification. This transition training enabled operators to operate both the 5000EN and I-8000 instruments until their current Intoxilyzer Certification expired. Participants that completed the class were issued a BTD operator certification.

3: Certification Training: The BTD Operator Certification training includes information on the I-8000 and 5000EN and is for new or expired operators.

4: Re-certification Training: The BTD Re-certification training includes information on the I-8000 and 5000EN and is required every three years to maintain certification. In 2016 we completed work on the new BTD Recertification on-line class through JPMA. Students may take the on line class, print their exam, and seek an instructor to complete the practical portion of the class.

CERTIFICATION

The transition from Intoxilyzer to BTD did not change the current certification periods. Operators are still certified for a period of three years expiring December 31.

** New operators will be certified for three years plus. Any certifications issued in: 2016 will expire 12-31-19. 2017 exp 12-31-2020. 2018 exp 12-31-2021, etc.

** Existing operators may attend re-certification training beginning January 1 of the year they expire. Training must be complete by November 30 and new certs will be issued January 1. Issued 1-1-16 exp 12-31-18, issued 1-1-17 exp 12-31-19, etc

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MAINE CRIMINAL JUSTICE ACADEMY

BREATH TESTING DEVICE OPERATOR CERTIFICATION

Specification S-41

Purpose:

To establish certification and recertification requirements and procedures for operators of self-contained evidential breath-testing devices (BTD's).

General Information:

The BTD Operator Certification and Recertification courses will consist of classroom and / or on line training and practical skills training as approved by the Board.

Upon the successful completion of the training, a certificate of proficiency valid for a period not to exceed four years shall be issued by the Director.

Certification Requirements:

1) The candidate must:

   a) Be sponsored by an agency department head

   b) Successfully complete the BTD Operator Certification course, including:

      i) Final examination cumulative average of 80% or greater,

   ii) Completion of required instrument maintenance checks and training breath tests monitored by and to the satisfaction of an MCJA certified BTD Instructor.

Recertification Requirements:

1) The candidate must:

   a) Successfully complete the BTD Operator Recertification on-line or classroom training course and score a minimum of 80% on the recertification exam.
   b) Successfully complete the required instrument maintenance checks and training breath tests (a practical skills assessment) monitored by and to the satisfaction of an MCJA certified BTD Instructor.
   c) Submit or cause to be submitted all supporting materials for their Re-certification to the Academy between January 1 and November 30th of the year in which their certification expires.

Materials must be received by Academy Staff not later than November 30.

Procedures:

1) Candidates will submit, or cause to be submitted, all certification and / or recertification documentation to the Academy on approved forms.

2) Candidates will submit, or cause to be submitted, all recertification documentation to the Academy in the required time frame (between January 1st and November 30th of the year in which their certification expires).

3) Recertification materials received by the Academy after November 30th will not be accepted and the candidate's BTD Operator Certification will expire on December 31st of that year.

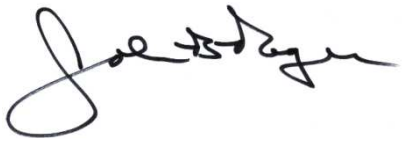
4) A BTD Operator whose certification expires must repeat all requirements for initial certification (Certification Requirements, 1a &1b above) in order to re-attain the certification.

Suspension of Certificate:

The BTD Operator certificate may be suspended by the Academy Director for:

1. Failure to maintain certification or re-certification requirements listed above, or
2. Failure to follow program curriculum guidelines that would jeopardize the integrity of the program.

Adopted: October 23, 2009
Amended: November 14, 2014



John B. Rogers, Director
Maine Criminal Justice Academy

Amy J. Berry, Chair
MCJA Board of Trustees

10-144 DEPARTMENT OF HEALTH AND HUMAN SERVICES
MAINE CDC, HEALTH AND ENVIRONMENTAL TSTING LABORATORY

Chapter 269: RULES GOVERNING SELF-CONTAINED BREATH ALCOHOL TESTING EQUIPMENT

SUMMARY: All self-contained breath alcohol testing equipment must be approved by the U.S. Department of Transportation as stated in the Federal Register and the State of Maine, Department of Health and Human Services. Each instrument must be tested and approved by the Public Health Laboratory and retested and re-approved semi-annually. Certain procedures are specified for calibration checks and use of self-contained breath alcohol testing equipment.

SECTION 1. EQUIPMENT

1. Only those instruments approved by the U.S. Department of Transportation for the purpose of breath testing will be considered. Evidence of this approval must be submitted by the manufacturer. An approved simulator must be provided for use with each instrument.

2. The accuracy and sensitivity of the equipment should be such as to obtain results within ± 0.01 g/210L or 5%, whichever is greater of the known value in the analysis of appropriate reference materials of known ethyl alcohol concentrations.

3. Before approval each instrument must be tested by a chemist of the Health and Environmental Testing Laboratory (HETL). Approval will be given provided the machine gives results accurate within the limits of the performance requirements of the Department mentioned in Paragraph B, and will be indicated by affixing to the instrument a stamp which will be valid for no more than seven months.

4. Each instrument will be retested by a chemist of the HETL at least once semi-annually. A new stamp of approval will be affixed to the instrument with the test date placed thereon.

5. Failure of an instrument to provide results accurate within the limits of the performance requirements of the Department (1.B), when detected, will be investigated by a trained operator or a chemist of the HETL to determine the cause of that failure. If the results of that investigation establish that the instrument itself is out of calibration, or non-functional, that will be cause for immediate withdrawal of approval and removal of the stamp of approval previously affixed.

SECTION 2. PROCEDURES

1. A calibration check must be run for each subject tested.

2. For each person tested, a complete breath-alcohol test must consist of 2 separate breath samples which result in determinations of breath-alcohol concentration which agree within ± 0.02g/210L.

3. If the first 2 breath sample results on the subject do not agree within ± 0.02g/210L, subsequent samples must be taken until 2 tests fall within the prescribed limits. If after 4 separate breath sample results are taken, no 2 breath sample results agree within the prescribed limits, the testing sequence shall be void and either a retest or an alternative procedure shall be required.

4. The two lowest results which agree within ± 0.02 g/210L will be averaged, reporting only the first two decimal places of the average result as the final breath alcohol concentration.

5. The Health and Environmental Testing Laboratory will provide any alcohol solution required by each agency for simulator tests.

STATUTORY AUTHORITY: 29-A M.R.S.A. §2524(6); and 22 M.R.S.A. §42(1); 17-A M.R.S.A. §1057 and 22-A M.R.S.A. §205(2)

EFFECTIVE DATE:
November 15, 1978

AMENDED:
August 1, 1982
October 17, 1988

EFFECTIVE DATE (ELECTRONIC CONVERSION):
May 5, 1996

AMENDED:
December 6, 2004 – filing 2004-553
September 1, 2010 – filing 2010-370

Principles of Operation

In most any criminal investigation process, the collection of evidence does not end with the arrest. Investigators should continue to gather information relevant to the suspect's culpability as long as it is reasonable to do so. In an Operating Under the Influence (OUI) case, a foundational piece of evidence is the chemical test. Officers must have probable cause that the suspect committed the crime of OUI in order to require the suspect to submit to a chemical test.[3] Once probable cause is established, officers must attempt to gather chemical evidence as soon as possible. In Maine, officers have two methods of obtaining chemical test evidence from the suspect: blood and breath.

In some cases, obtaining a blood test will be the reasonable and best method for gathering chemical evidence. Indeed, in the cases of a fatal motor vehicle accident, it is the required method.[4] Other examples may include: (1) situations where the suspect is incapable of submitting to a breath test (e.g. injury, medical or other physical impairment which prevents the submission of a breath test); where the environmental conditions preclude the administration of such test (e.g. an arrest where an officer is not within reasonably close proximity to an Intoxilyzer, or where the Intoxilyzer is not operating properly); or situations in which the suspect prefers a blood test and the officers agrees.[5] In most cases, however, the breath test will be the test of choice. The breath test is obtained through the use of the Intoxilyzer.

The Intoxilyzer: A Brief Introduction

Both the Intoxilyzer 8000 and 5000EN are designed for use by the law enforcement community. As such, it is rugged, quick, easy to use and tamperproof. It requires no chemicals or gases, it is internally voltage regulated and permanently calibrated. Its digital readout and multi-copy printout present and preserves firm arrest evidence.

The Intoxilyzer utilizes well-accepted technologies based on sound physical principles to analyze the concentration of alcohol in a suspect's breath sample.

A person's exhaled breath typically contains molecules resulting from the different chemicals present in the human body. These can include chemicals naturally occurring as well as those that may be artificially introduced (such as alcohol). Depending on their physical size and structure, these molecules absorb light energy of specific wavelengths.

[3] (officers should never take chemical evidence from a suspect unless probable cause exists for an arrest)
[4] MRSA 29-A 2522-1
[5] Officers first choice should be the Intoxilyzer unless it is unreasonable

Alcohol molecules, for example, absorb the energy of infrared light over a particular wavelength range. Using an infrared energy absorption technique, the Intoxilyzer instrument computes the alcohol concentration in a breath sample by measuring the difference between the infrared energy introduced into the sample and the infrared energy absorbed by alcohol molecules present in that sample.

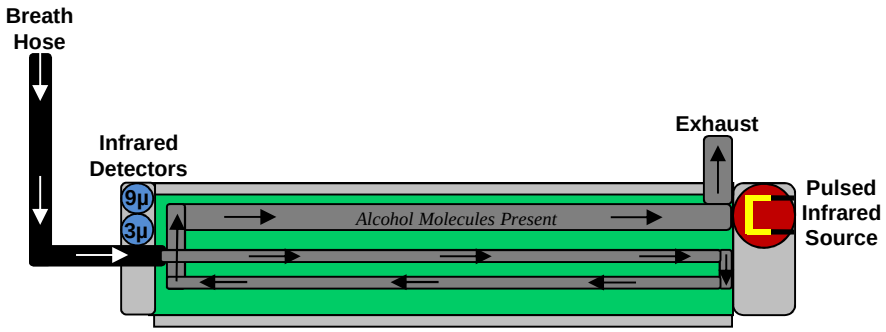
The heart of the Intoxilyzer is its sample chamber. At the front of the I-8000 chamber, a pulsed infrared lamp emits infrared light energy which is directed through the chamber onto a 3 and 9 um infrared energy detectors.

(The 5000EN uses an infrared lamp directed through lenses onto a rotating filter wheel with five specific filters (3.36, 3.40, 3.47, 3.52, 3.80 microns) and then to the detector)

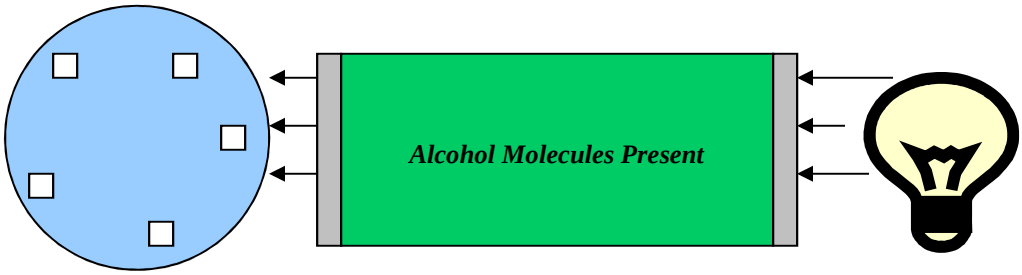
Prior to the sample submission, the Intoxilyzer establishes a zero reference point by first measuring the amount of infrared light energy striking the detector after the sample chamber is filled with the surrounding room air. Then during the suspect's sample submission, the number of alcohol molecules in the sample chamber rises. Thus, the amount of infrared light energy reaching the detector decreases as a result of the light energy being absorbed by the rising number of alcohol molecules present.

Knowing this, the Intoxilyzer computes the difference between the initial light energy present at the zero reference point, and the light energy that was absorbed by the alcohol molecules which were introduced during the suspect's sample submission. Upon obtaining this information, the instrument can calculate the subjects breath alcohol concentration.

The Intoxilyzer 8000: Sample Cell



The Intoxilyzer 5000EN: Sample Cell



Filter Sample Chamber Infrared Lamp

Section 2 – Concepts of Breath Testing

Several differences between the I-8000 and 5000EN are outlined here and discussed in detail in this section.

1. Minimum Pressure: The subject must supply a continuous breath sample at a sufficient rate of 0.17 L/per second in the 5000EN and .015 L/per second for the I-8000.

2. The sample chamber in the 5000EN is slightly longer at 11.4 inches. The I-8000 is 10.5 inches.

3. "Insufficient Sample" in the 5000EN and "Deficient Sample" in the I-8000 identify a sample not meeting the requirements of minimum pressure, minimum time, level slope, and minimum volume.

4. The "Interferent Detection" system in the 5000EN uses a filter wheel with 5 filters explained on page 25. The I-8000 uses 2 detectors.

5. The 5000EN may subtract an interferent and allow you to continue testing. The results with "Interferent Subtracted" will appear on the test sheet. The I-8000 will detect an interferent and stop the test printing "Interferent Detected" on the test sheet.

Alcohol and the Human Body

Pharmacology of Alcohol

Alcohol is a descriptive name for a certain family of chemical compounds. There are many kinds of alcohol, but only ethyl alcohol is used in beverages for human consumption. **Ethyl alcohol**, also referred to as **ethanol**, is in its pure form a volatile, colorless liquid, which possesses an ethereal odor, and produces a burning taste sensation. Ethanol is the alcohol that is routinely referred to, and tested for, in blood alcohol and breath alcohol determinations in OUI investigations. For the purposes of this course of instruction the terms alcohol, ethanol, and ethyl alcohol will be synonymous.

SOME COMMON ALCOHOLS

NAME	FORMULA	USES	LETHAL DOSE
Ethanol (Grain alcohol)	CH_3CH_2OH	Beverage, solvent, medicinal vehicle, fuel	Approximately 0.45 gms/dl
Methanol (Wood alcohol)	CH_3OH	Denaturant, solvent, fuel, paint remover	Approximately 0.07 gms/dl
Isopropanol (Rubbing alcohol)	$CH_3CHOHCH_3$	Denaturant, solvent, disinfectant	Approximately 0.25 gms/dl

Formulas: C = Carbon atom, H = Hydrogen atom, O = oxygen atom

Ethyl alcohol is classified as a drug. It is a **depressant drug** that has as its target organ the brain. **It is infinitely soluble in water**, which means that it dissolves in and circulates with all the water-based fluids in the body. The human body being 55% - 68% water allows for blood, urine and vitreous fluid to all be tested for alcohol content.

The distilled alcoholic beverages (whiskey, etc.) are labeled according to the **proof system**. The proof of an alcoholic beverage **is equal to twice the ethanol concentration in the beverage**. For example: 100 proof whiskeys contain 50% ethanol by volume. Pure ethanol is 200 proof because it is 100% ethyl alcohol.

Equivalent amounts of common alcoholic beverages are as follows:

One drink = 12 ounces of beer or **1.25 ounce of 100 proof whiskey** or **5-6 ounces of wine**. Each of these "drinks" contains the same amount of pure ethyl alcohol.

Physiology of Alcohol

Absorption

Alcohol can be absorbed into the human body by several routes. The most common method is by ingesting (drinking) of alcoholic beverages. Alcohol can also be absorbed into the body via direct **injection** or insertion (enema or vagina), but both these routes are extremely irritating and dangerous. Alcohol may reach a detectable level in the blood through **inhalation** or **skin contact**.

Alcoholic beverages that are ingested enter the stomach, and then are emptied through the pyloric sphincter (a valve) into the small intestine. Absorption into the bloodstream occurs to a small degree (20-25%) through the stomach wall, and to the greatest extent through the wall of the first part of the small intestine (duodenum). This process happens the quickest when drinking on an empty stomach. The presence of food in the stomach at the time of alcohol consumption delays the absorption of alcohol into the bloodstream, and the time required to reach the maximum blood alcohol concentration (BAC).

Distribution

Once the alcohol enters the bloodstream it passes through the liver to the heart, lungs and ultimately the brain, its target organ. As the blood carries the absorbed ethanol throughout the various tissues of the body, it diffuses into these tissues as long as the concentration of alcohol in the blood is higher than that of the tissue. Eventually the alcohol is evenly distributed throughout the bloodstream and to the various organs of the body. At this point the ethanol is said to have reached a state of “equilibrium” within the body.

BrAC, How it works

When blood carrying ethyl alcohol circulates through the blood vessels in the alveoli of the lungs, alcohol exchanges into the air in the lungs. The alveoli are tiny tissue sacs within the lungs that are richly supplied with blood. They can be likened to bunches of grapes. The blood vessels in the alveolar sacs border the air spaces, and allow for the movement of ethanol from the blood, directly through the blood vessel wall, and into the air spaces in the lungs. This process can be likened to evaporation, and is how alcohol appears on the breath of individuals who have ingested alcoholic

beverages. The exchange of oxygen into, and carbon dioxide out of, the blood happens in the same way at the same time.

This free exchange permits the level of alcohol in the breath to reach rapid equilibrium with the level of alcohol in the blood in the deep lung (alveolar) air according to Henry's Law.

Elimination

Alcohol is eliminated from the human body in two ways:

1. Approximately 90 – 98% of the alcohol is eliminated from the body by being metabolized by the liver. Metabolism is the process by which substances in the body are broken down into other compounds that can be more easily used or removed by the body. The liver breaks down ethanol at a fixed rate of approximately 0.015g/210L per hour, which is not affected by outside influences like exercise, vitamins, or caffeine intake.

2. Some alcohol is excreted unchanged through all body fluids. Urine and breath account for most of this form of elimination. No more than 10% leaves the body by whatever route water exits the body.

Physiology Review:

When blood carrying alcohol circulates through the capillaries in the alveoli, alcohol exchanges into the air in the lungs. Alcohol molecules move through the blood vessel walls into the neighboring air spaces and equilibrium is achieved according to Henry's Law.

The upper respiratory air located in the mouth and throat give a lower alcohol result when analyzed because the air, referred to as tidal breath, does not represent a true 2100:1 ratio. The subject must exhale for 5-6 seconds to eliminate the majority of tidal breath to get air more representative of the 2100:1 ratio explained in Henrys Law.

Factors that can affect the accuracy of a breath test:

First, the composition of the breath sample. If the breath sample contains a mixture of alveolar and tidal breath, the sample will contain less alcohol than would a pure alveolar sample. Therefore, the test result will be lower than the suspects actual BAC.

Second, Residual Mouth Alcohol (Display: Invalid Sample). When a person takes a drink, some of the alcohol remains in the tissue of the mouth and /or other areas (Dentures). It requires 15 minutes for the alcohol left in mouth to dissipate after the last drink. If the breath test is taken less than 15 minutes after a drink, residual mouth alcohol may be carried into the breath sample and affect the test making the result higher than the subject's actual BrAC. Therefore, no breath test should be given for 15 minutes following a drink.

Third, a possible source of error is other substances or contaminants, in the breath. Alcohol is not necessarily the only substance that will react to a breath test for BrAC. Certain substances other than Ethanol, such as acetone (Diabetes), ether, chloroform, toluene, or acetaldehyde conceivably could be present in breath of some persons. The Instrument will flag and subtract (subtract in the 5000 only) acetone as it sees it, and flag all others. In these situations you should administer a blood test.

The Scientific Principles of Intoxilyzer Operation

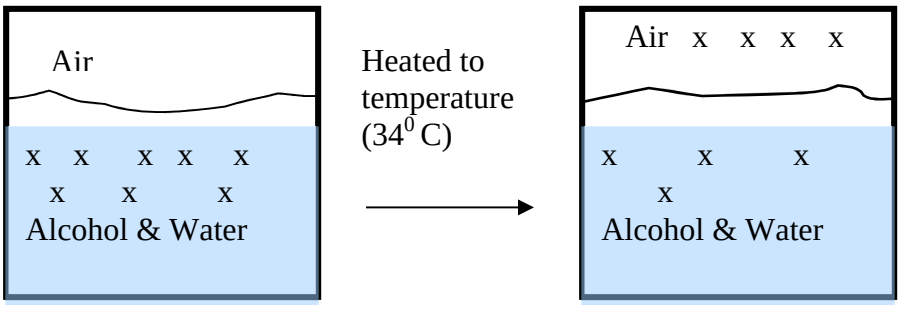
Henry's Law

Henry's Law is the first scientific principle the Certified BTD Operator must be familiar with. Utilizing Henry's law, the Intoxilyzer measures the number of alcohol molecules in the subject's breath sample and under this principle is thus able to calculate the BrAC (Breath Alcohol Concentration).

Henry's Law states that for a fixed concentration of a substance in water, at a fixed temperature, the ratio of the substance in the air space above the water is fixed. This means that if you have an alcohol and water solution in a covered container, and hold it at a certain temperature, the alcohol concentration in the air above the liquid will always be in the same proportion. It doesn't matter what size the container is, as long as the same solution, at the same temperature, is placed in all the containers, the concentration of alcohol in the air above the liquid will be the same. A visual example of this is the

simulator that is used to check the calibration of the Intoxilyzer. Different size simulators will all give the same result with the same target value solution in them. The constant temperature for this equilibration is 34°C (94°F), which is both the normal temperature of exhaled breath, and the proper operating temperature of the simulators used with the Intoxilyzer.

Applying Henry's Law to alcohol in the human body yields a correlation between the alcohol in the blood (liquid), and the alcohol in the breath (air). This blood alcohol to breath alcohol ratio is **2100:1. This means that there is the same amount of alcohol in 2100 ml of deep lung (alveolar) air, as there is in 1 ml of blood.**



Before Equilibrium After Equilibrium

In order to insure that the breath sample analyzed is primarily an alveolar sample, and therefore most indicative of the subject's breath alcohol level, there are several criteria that must be met before the Intoxilyzer accepts a subject's breath sample:

I-8000

1 (**Minimum Pressure**) **The subject must supply a continuous breath sample at a sufficient rate of 0.15 L/per second.** The audible tone, triggered by the flow sensor, must be sounding continuously while the person is blowing into the instrument.

2 (**Minimum Time**) **The subject must supply a continuous breath sample of at least 4 seconds.** The audible tone must be sounding continuously while the person is blowing into the instrument.

3 (**Level Slope**) **The rate of change (slope) of the alcohol concentration shown on the digital display must have dramatically slowed and/or stopped**. The concentration of breath alcohol in the sample chamber of the Intoxilyzer must reach a plateau.

4 (**Minimum Volume**) The amount of breath blown into the instrument must be at least **1.1 Liters**.

All four of these criteria must be satisfied for each breath sample before the Intoxilyzer will accept that breath sample as complete. Exception messages in the I-8000 such as "**Deficient Sample**" or "**Invalid Sample**" may accompany results that are incomplete, or in some way unsatisfactory.

5000EN *1. The 5000EN requires a minimum pressure of 0.17 L/per second.*
5000EN will show "Insufficient Sample" or "Invalid Sample

Basic Infrared Spectroscopy

Infrared light is radiant energy whose wavelengths fall just after the red end of the visible light spectrum that we see. **Wavelength** is the distance between similar points (crests or troughs) on two consecutive waves of light, and is usually measured in **microns** (millionths of a meter). Each different color that we see, for instance, is light of a different wavelength. The colors of the visible spectrum listed in order of increasing wavelength are as follows: violet – indigo – blue – green – yellow – orange – red

All molecules vibrate by bending and stretching the bonds that hold the atoms of the molecule together. These bonds are like a vibrating piece of elastic joining one atom of a molecule to another. Many chemicals can absorb, into their atomic bonds, different wavelengths of the infrared light spectrum to a greater or lesser degree. This causes the bonds to vibrate faster, and yields a sort of fingerprint for each different chemical depending on which wavelengths of light it can or cannot absorb.

Infrared light of certain wavelengths can be absorbed into certain bonds of the ethyl alcohol molecule and make them vibrate faster. The Intoxilyzer 8000 measures the absorption of infrared light by alcohol at the wavelengths of **3.40** and **9.40 microns**. *(5000EN at 3.40 and 3.47 microns)* The amount of light absorbed at these wavelengths is used to calculate the alcohol concentration in the breath sample using the **Lambert-Beer Law.**

Lambert-Beer Law

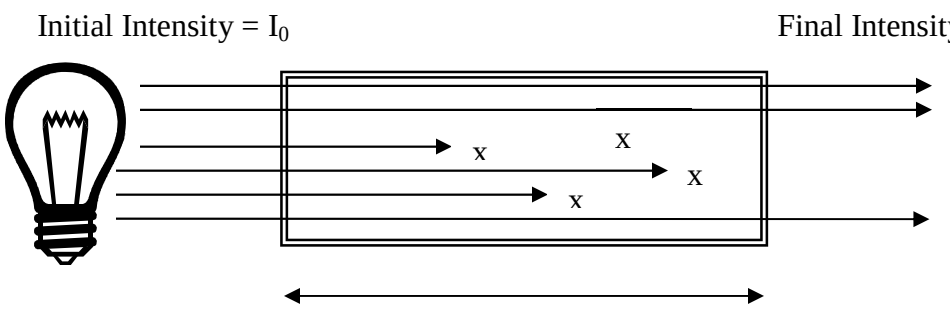
The Lambert-Beer Law is a mathematical formula based on an accepted law of physics that expresses the relationship between the amount of light absorbed by a sample, the length of the optical path, and the concentration of a substance in a sample. The amount of light absorbed is the difference between the amount of light entering one end of the Intoxilyzer sample chamber (**initial intensity**), and exiting the other (**final intensity**). The length of the sample chamber in the I-8000, 10.5 inches. *(5000EN is 11.4 inches)* is the **length of the optical path.** Using this formula, the Intoxilyzer can calculate the concentration of a substance (alcohol) in a sample (breath) by detecting how much light the sample absorbs.

During the testing of a subject's breath, or a simulator solution, a vapor sample is introduced into the Intoxilyzer sample chamber, which has a fixed path length. The amount of light traversing the sample chamber without any sample in it (initial intensity) is compared to the amount of light exiting the chamber with a sample in it (final intensity). The greater the amount of infrared light absorbed in the sample chamber, the greater the amount of alcohol in the sample.

The Lambert-Beer formula is as follows: $I = I_0 e^{-abc}$

- I_0 = Initial intensity of light
- I = Final intensity of light
- e = 2.718 (math constant)
- a = Absorption coefficient for ethyl alcohol (math constant)
- b = Path length (10.5 inches)
- c = Concentration of ethyl alcohol in the sample

Sample Chamber



Interfering Substances

Ethyl alcohol is not the only chemical in existence that can absorb infrared light at 3.40 microns. Acetone, which occurs normally in minute trace amounts on human breath, also absorbs infrared light at this wavelength. To preclude the possibility of a subject test being falsely elevated by acetone, **the Intoxilyzer 8000 incorporates an interferent detection system that checks for the presence of acetone in samples** by measuring light absorption at both 3.40 and 9.40 microns. The Intoxilyzer 8000 monitors the difference in absorption between the 3 and 9 mu channels. A disparity between the 3 and 9 channels flags the operator with **"INTERFERENT DETECT".** The Intoxilyzer will abort the test and print "INTERFERENT DETECT" on the report.

The Intoxilyzer 8000 uses two infrared detectors to check for alcohol and interfering substances. Their wavelengths are as follows:

- 3.40 microns
- 9.40 microns

The use of two infrared detectors to check for interfering substances in the breath sample make the Intoxilyzer **8000's interferent detection system very sensitive to <u>many</u> different chemicals**. It should be noted that in general these chemicals are extremely toxic to human beings, and death can result from even small amounts. Medical treatment should be immediately sought for persons with acetone or other harmful chemical substances present in their body, unless the facts and circumstances indicate otherwise. **If a subject provides breath samples that are flagged with an interferent message on the Intoxilyzer printout, they should be given an alternate type of test.**

<u>The 5000EN:</u> *<u>uses a similar system except that it measures light absorption at both 3.40 and 3.47 microns to check for the presence of acetone. The 5000EN will flag the sample as **"INEERFERENT DETECTED"** and **"INTERFERENT SUBTRACTED"** if acetone is present. The 5000EN also automatically subtracts any amount of acetone it detects from the test result, and prints an extra "INTERFERENT SUBTRACTED" line beneath each affected breath test result. The 5000EN uses other filters to check for interfering substances. Their wavelengths are as follows:</u>*

3.80 microns – reference (nothing should absorb here)

3.52 microns – checks for the presence of toluene (from paint products)

3.36 microns – checks for presence of acetaldehyde (alcohol metabolite)

The use of these extra filters to check for interfering substances in the breath sample make the 5000EN interferent detection system very sensitive to many different chemicals. Depending upon the wavelength at which the interferent is detected, the 5000EN may flash ***"INTERFERENT DECTECTED"*** *and abort the entire test sequence without attempting to do a subtraction as with acetone.*

Testing Overview:

The two types of tests used to measure alcohol levels in Maine are Blood (**BAC**) and Breath (**BrAC**) tests. Any body fluid or substance that contains water can be analyzed to determine blood or breath alcohol content. Alcohol dissolves readily in water and is carried throughout the body. Organs and tissues having the highest water content receive the most alcohol. The purpose of any chemical test is to determine the concentration of alcohol in the blood or breath.

Examples of body fluids and tissues that can be analyzed to determine blood/breath alcohol levels include: Blood, breath, urine, saliva, spinal fluid and various tissues (Brain, liver, lung, etc.)

Both blood and breath tests are considered a direct measurement of blood alcohol concentration. The concentration of alcohol found in the breath sample is displayed in grams per 210 Liters of breath.

Breath Testing

If we know how much alcohol is present in a sample of the suspects deep lung air, we can determine that persons BrAC. All breath tests for BrAC work on the principle of obtaining and analyzing a sample of deep lung air. Deep- lung air is called alveolar air (i.e. it comes from the alveoli). Breath from the upper part of the lungs and from the mouth is called tidal breath. Tidal breath is farther from the alveoli and therefore receives less alcohol. Alcohol in deep - lung air only comes into equilibrium with alcohol in the blood at a ratio of 2100 to 1. (2100ml Alveoli Air - 1ml Blood) Breath tests usually benefit the defendant because the most scientific ratio is 2300 to1.

As an individual exhales, they expel a mixture of tidal breath and alveolar air. The first part of the exhalation consists almost entirely of tidal breath. As they continue to exhale, a greater proportion of alveolar air is expelled. The last part of exhalation (just before running out of breath) consists almost entirely of alveolar air.

Blood Test vs. Intoxilyzer Test

Blood Test: Advantages: Use with Unconscious or Uncooperative individuals

No possibility of interfering substances affecting the result

Disadvantages: Qualified personnel to draw blood

$35 draw fee, $10 cost of kit

Lab analysis and reporting $60

Chain of custody of the evidence

Does not provide immediate result

Intoxilyzer: Advantages: Administered by non-medical personnel

Less personnel involved

Does not require laboratory services

Provides immediate result

Low cost: 30 cents (mouth pieces and paper)

Disadvantages: Subject must be conscious and cooperative

Arguments about interfering substances

Generally lower results

Blood Testing Procedure

If the circumstances of the incident do not allow for a breath test and a blood test is chosen, the following steps are required for the requesting officer to follow:

1. The location for the blood draw needs to be in a clean and secure facility/location- Most of the time this will be at the Intox site location (County Jails & Police Departments). But other locations can include hospitals, the back of ambulances/rescues, etc. **But never in an unsanitary or unsafe environment.**

2. Perform Implied Consent procedures the same as you would for breath testing. If the suspect requests a physician, per the implied consent, then you should make an attempt to find one. It does not have to be suspect's physician. Example: 1. If at the hospital, ask a physician if they would draw the blood for you. If they say no, then you made a reasonable attempt. 2. If the suspect is at a location where there isn't a physician and the suspect wants their physician, attempt to have their physician contacted. If the physician is willing to do it, the physician must come

to your location (For safety reasons) and must be reasonably available (within 2 hours per case law.).

3. Request for a blood tech per your department policy- In most cases Dispatch is contacted to find a blood tech.

4. While waiting for the blood tech make sure you have blood kits at your location. If not, have someone bring you one or two kits. It is required by Statute to use DHHS Lab approved blood kits (Even if you are at a medical facility or in the back of an ambulance.). Verify that the kit is not expired. If expired, attempt to locate a kit that is not expired. Do not break the seal and/or open the blood kit. The blood tech does this.

5. When the blood tech arrives to draw the blood, the Officer will need to **observe the entire procedure** from when the blood tech opens of the kit, draws the blood, completes the paperwork, and then seals the kit. This is for evidentiary/chain of custody issues.

   Note- 1. The Officer will have to sign a form, in the kit, as a witness to the drawing of the blood.

   2. There is a form in the kit asking for the suspect to sign that they are consenting to the blood draw. This is not required and if they do not want to sign they do not have to. But they still have to let their blood be drawn and if not, then administer the Implied Consent procedure, as you would a breath test.

6. When the blood tech has completed the blood draw and sealed the kit, they will give it to the officer to be properly secured as evidence prior to transporting to the lab. When storing the blood kit, it may be put in a refrigerator, but it is not required because there are chemicals in the tube that hinder the blood from clotting.

7. The blood kit needs to be delivered to the lab as quickly as possible. Examples of how the Officer can deliver the blood kit to the lab are:

   1. Send it by mail- Make sure it is sent with signature receipt required. This is to show proof that it was sent and the lab received it.

   2. Have a representative from your agency, that is authorized to handle evidence, bring it to the lab.

   3. Place the blood kit in a DHHS drop box for transport to the lab (Example locations include: The Cumberland County Jail and the State Police Barracks in Gray).

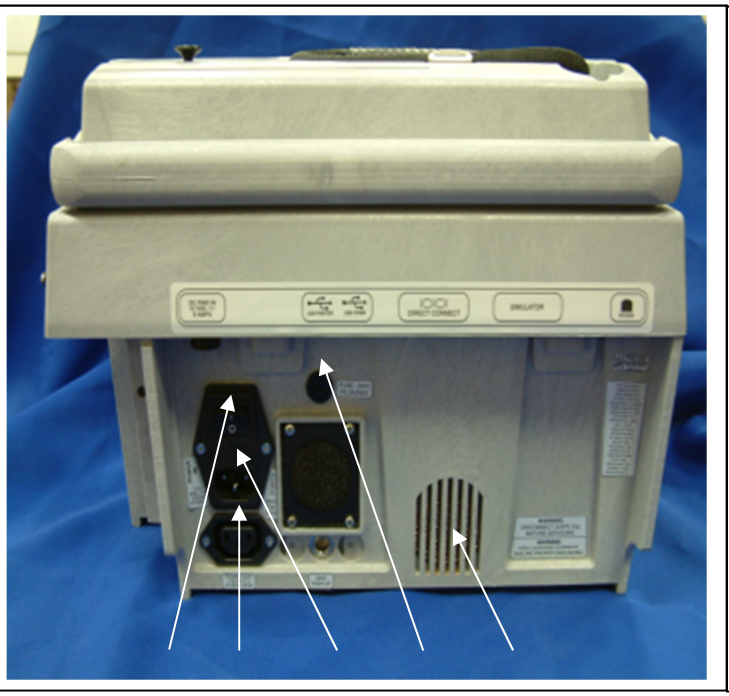
Section 3 – Instrument Components

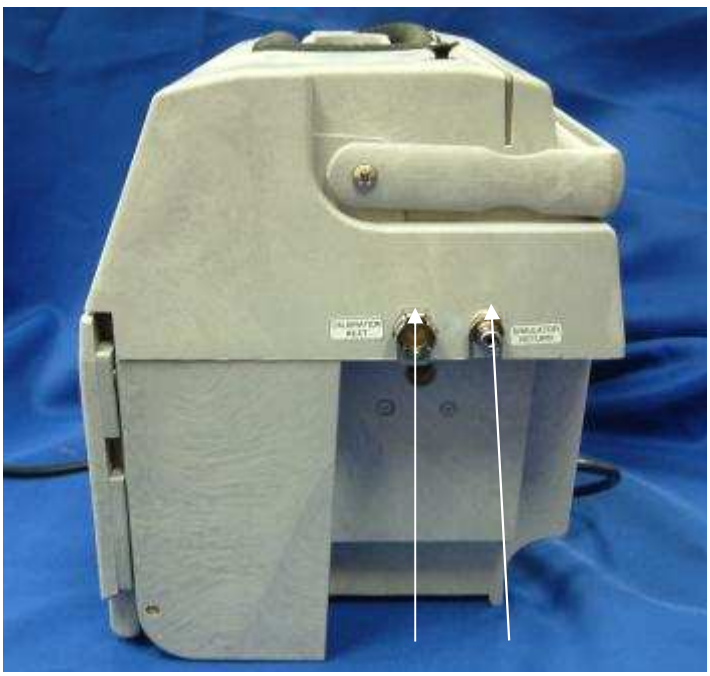
See Appendices page 80-85 for 5000EN and HP 1100 printer components.

EXTERNAL CHARACTERISTICS OF THE INTOXILYZER 8000

To familiarize yourself with the parts, controls and indicators of the Intoxilyzer 8000, refer to the illustrations and cross-referenced explanations below.

1. **Breath Tube –** A heated, reinforced plastic tube through which the subject blows into the sample chamber.
2. **Display –** An alphanumeric Vacuum Florescent Display (VFD) that relates which operations the instrument is performing, alerts the operator to required actions, and gives the alcohol test concentration in weight per volume.
3. **Mouthpiece Storage –** A heated compartment to store a limited amount of mouthpieces.
4. **Start Test Button –** A push button switch that is used to bring the instrument out of standby and initiates the testing sequence.
5. **Paper Feed** – Advances internal printer paper (**Not included on our models**)
6. **Power LED –** A light that indicates when the power to the instrument is turned on. Green and Red indicate power levels.
7. **Keyboard** – An internal fold up/down keyboard.

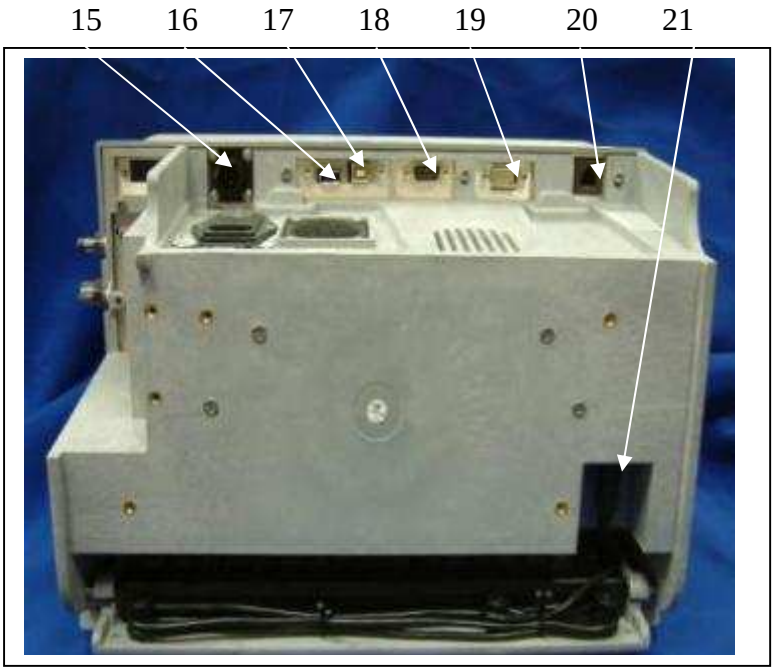




8 9 10 11 12 13 14

8. **AC Power Switch –** A toggle switch used to turn the electrical power to the instrument on or off.
9. **AC Power Connector –** Provides 120 VAC power to a simulator or other accessory.
10. **AC Power Jack –** This is where the electrical power cord for the instrument is plugged in.
11. **DC Power Fuse** – The instruments 12 VDC fuse.
12. **Speaker** – Produces the instruments auditable operational tones.
13. **Simulator Inlet –** The "**vapor in**" port is used for the recirculation of vapors from a simulator. This port attaches to the "**to breath tester**" connection.
14. **Simulator Return –** The "**simulator return**" port is the pump used for the recirculation of vapors from a simulator. This port attaches to the "**air inlet tube**" connection on top of the simulator.

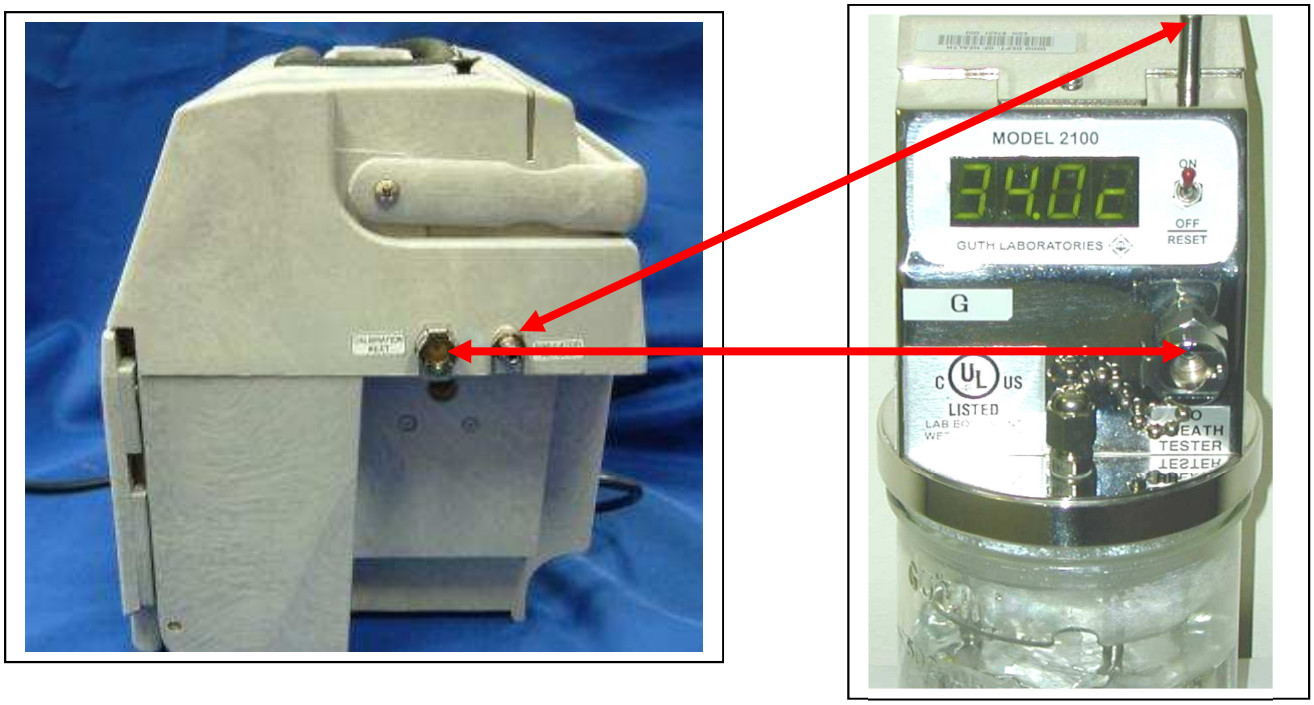
15. **DC Power Jack –** This is where the 12 VDC power cord for the instrument is plugged in.
16. **USB Printer Connector** – This USB connector is used to connect the external printer to the instrument.
17. **USB Comm** – This USB connecter allows direct communication between the instrument and a computer.
18. **Simulator Connector –** This 232 connector allows direct communication between the instrument and a simulator.
19. **Ethernet Connector –** This Ethernet connector allows communication between the instrument and a network.
20. **Modem Connector –** The telephone line plugs into this connection to connect the instrument's internal modem for data communications.
21. **Keyboard Jack** – This is where the keyboard for the instrument is plugged in.



Connecting the Wet Bath Simulator to the Intoxilyzer 8000

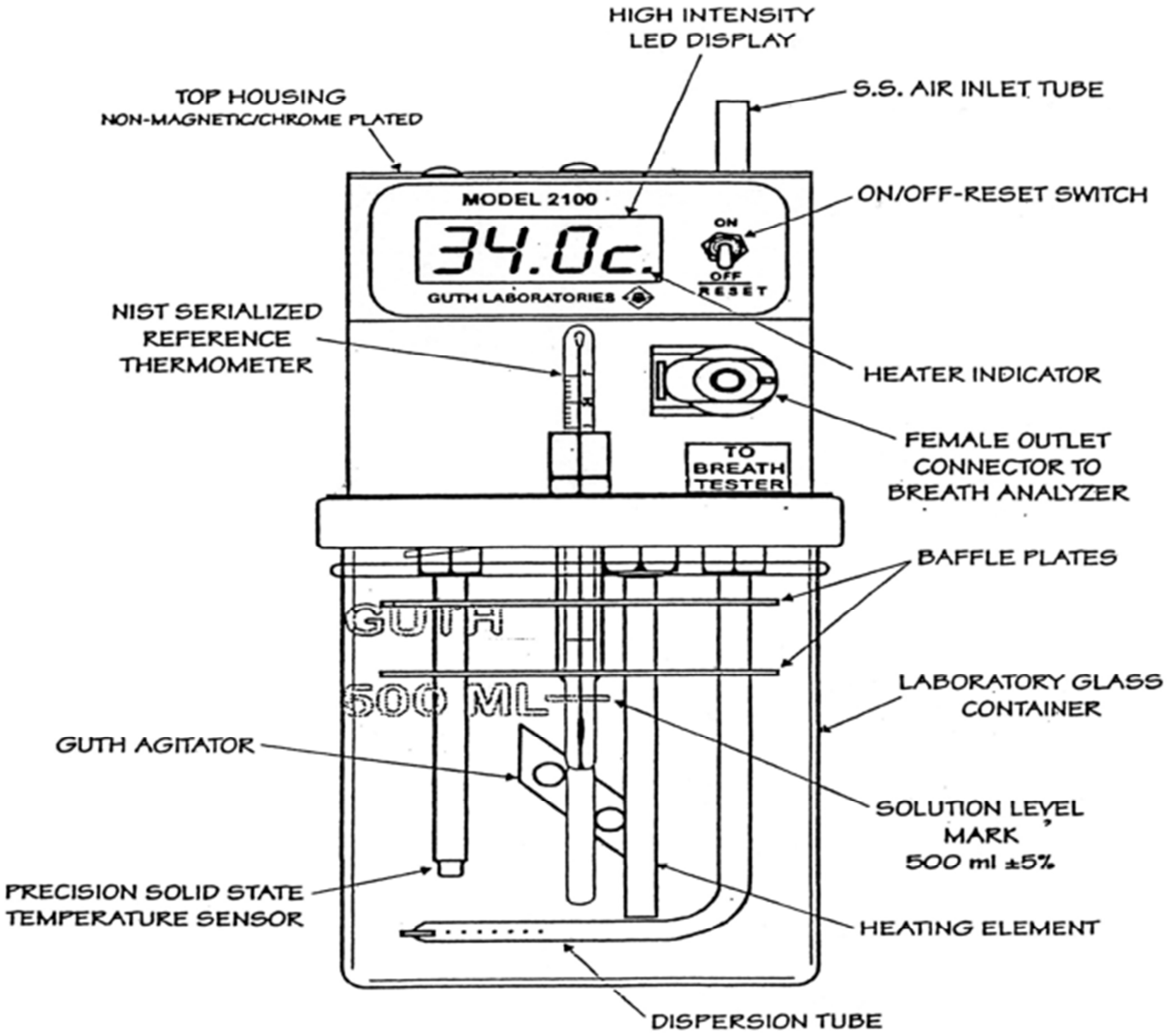
The simulator will be connected to the instrument with ¼ inch flexible tubing. The I- 8000 and 5000EN have a recirculation system that allows the alcohol vapors from the simulator to be recovered and recalculated through the system. This recirculation technique lengthens the life of the simulator solution.

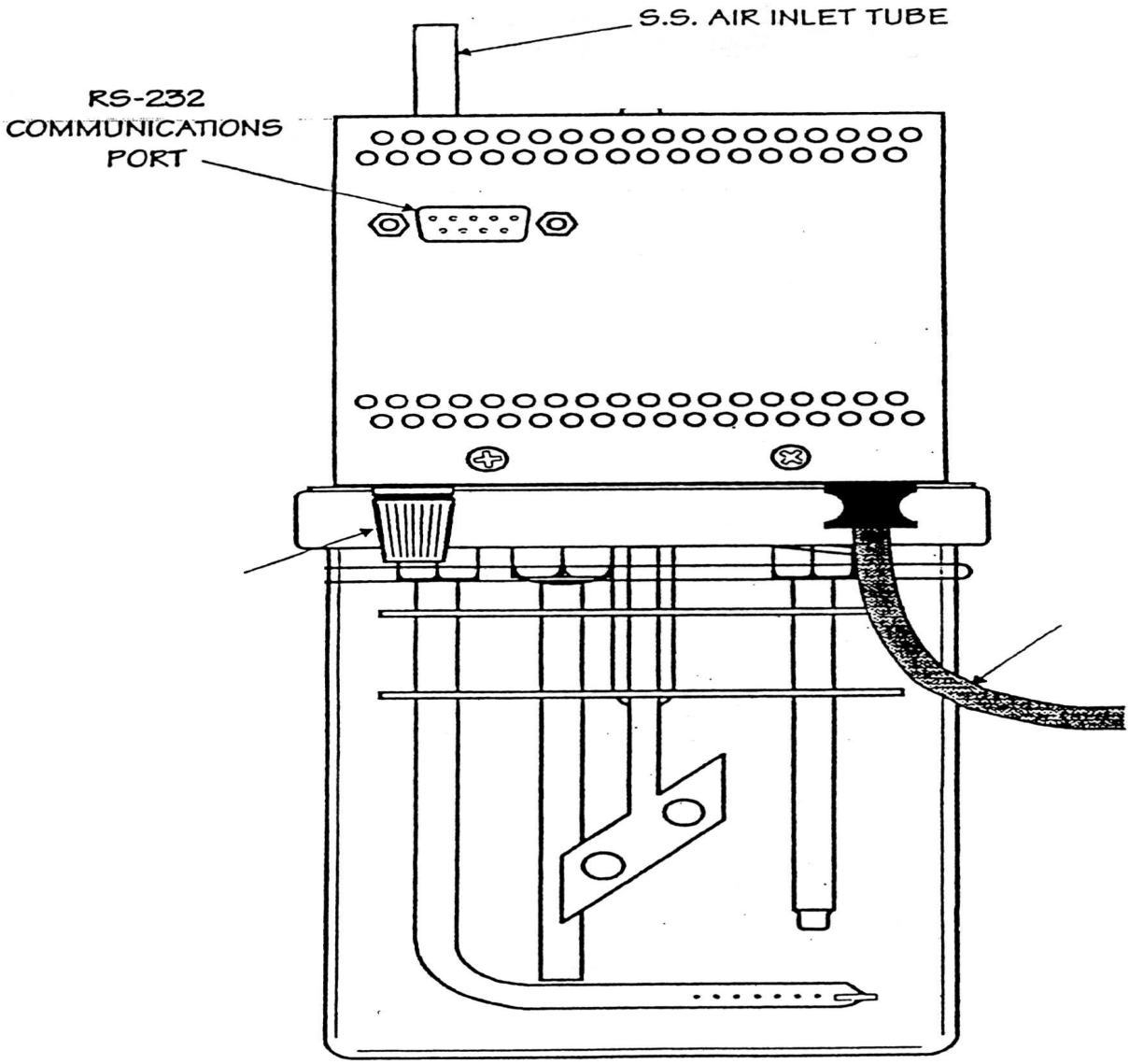
The **VAPOR OUT** port (TO BREATH TESTER) on the simulator connects to the FEMALE port on the right side of the instrument. The **AIR IN** port (PUMP) on the simulator connects to the MALE port on the right side of the instrument. The tubing is an exact fit to minimize condensation. Be careful to make these connections correctly.



Simulator is used for both the I-8000 and 5000EN

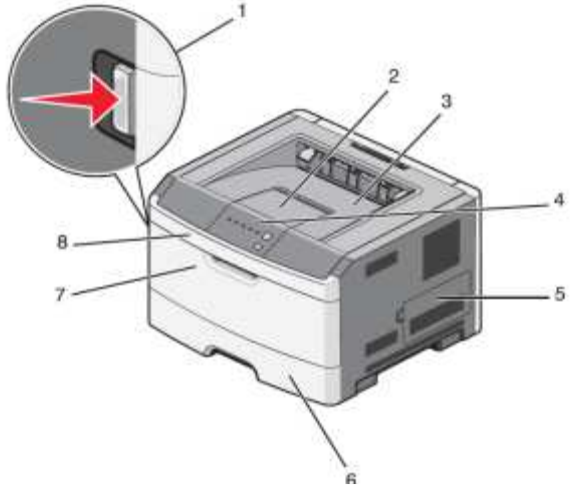
GUTH MODEL 2100 SIMULATOR




S.S. AIR INLET TUBE
RS-232
COMMUNICATIONS
PORT

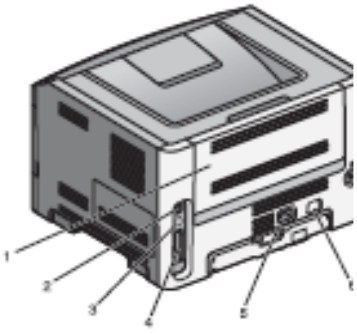
The Printer originally issued with the I-8000 is the LEXMARK E260D

See appendices for 5000EN printer



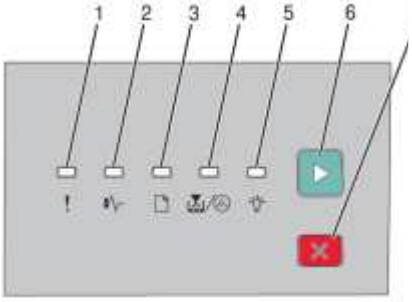
1 Front door release button
2 Paper stop
3 Standard exit bin
4 Printer control panel
5 System board door
6 Standard 250-sheet tray (Tray 1)
7 Manual feeder door
8 Front door

LEXMARK E260D REAR VIEW



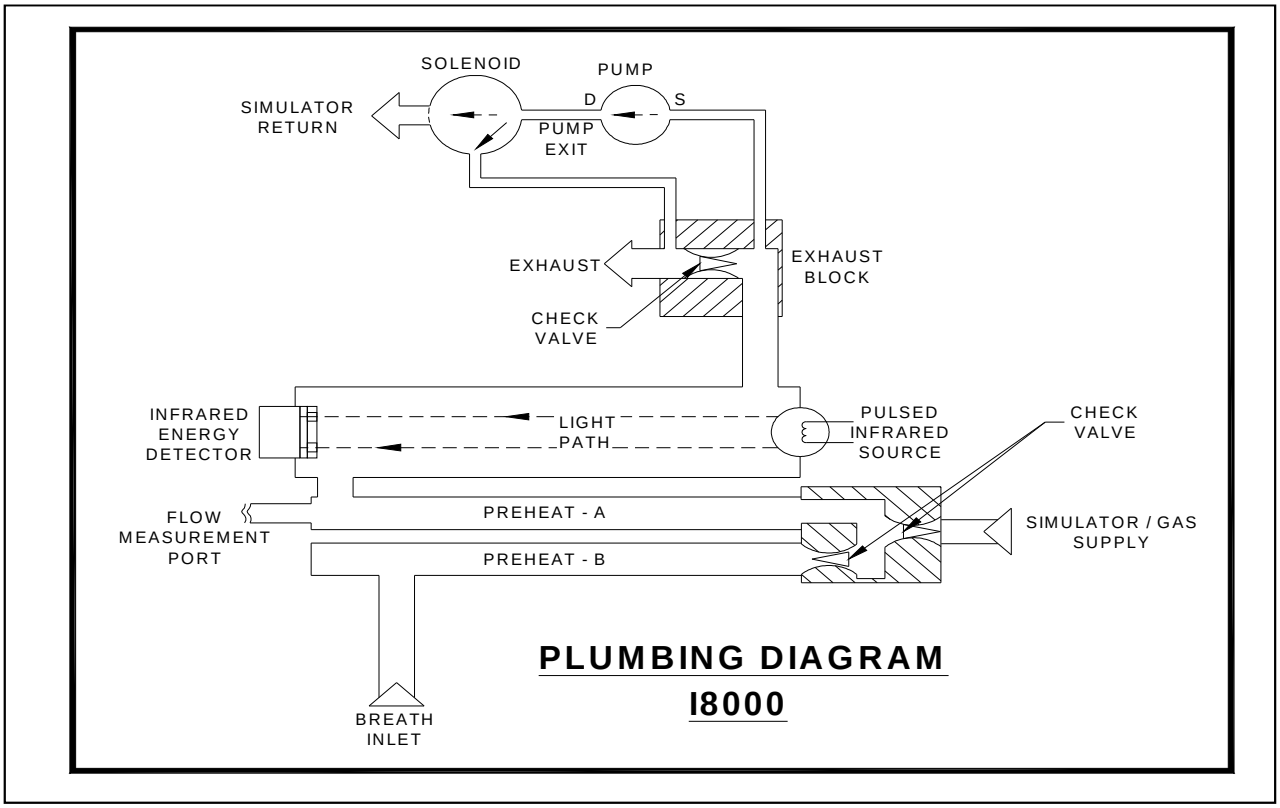
1 Rear door
2 Ethernet port
Note: The Ethernet port is a feature on network models only.
3 USB port
4 Parallel port
5 Printer power cord socket
6 Power switch
7 Security slot

LEXMARK E260D CONTROLS



Item		
1	Error light	
2	Jam light	
3	Load paper light	
4	Toner light	
5	Ready light	
6	Continue button	
7	Stop button	

PLUMBING DIAGRAM INTOXILYZER 8000



Section 4 – Operational Overview

Operational Overview

This section is designed to provide a concise overview of the Intoxilyzer administration process. It outlines the major points that need to be addressed from an investigation and prosecution point of view in order to serve as a quick reference guide to certified Breath Testing Device (BTD) operators. Section Five (which follows) will address the entire process more thoroughly including the data entry process, internal checks procedures and the proper processing of the associated paperwork.

This Section is broken down into five subcategories, each addressing the highlights of the issues that must be addressed: (1) The Certified BTD Operator; (2) The Test Subject and the 15-Minute Wait / Observation Period; (3) The Start-Up Procedure and Data Entry; (4) Sample Submission; and (5) Associated Paperwork.

(1) The Certified BTD Operator

The taking of a person's breath sample is a form of evidence gathering and subject to State law. M.R.S.A 29A, sections 2524 and 2431 are the governing statutes on point. Essentially, the law requires that in order for an Intoxilyzer test to be properly submitted into evidence, it must be administered by a person certified by the MCJA. Thus, a test not performed by a certified BTD operator (e.g. by a police officer whose certification has expired), cannot be considered in evidence at a motor vehicle hearing and will be of significantly questionable value in a trial court.

Ultimately, it is the responsibility of the certified BTD operator to be certain that their BTD certification is valid prior to the administration of any test. A recommended practice is for certified BTD operator to keep their BTD certification cards reviewable on hand so that they are aware of their current status as of the date of the test.

(2) The Test Subject and the 15-Minute Wait /Observation Period

After ascertaining that the certified BTD operator is able to administer a proper Intoxilyzer test, the next step is to be certain that the suspect is an appropriate test subject. M.R.S.A. 29A Sec. 2521 regulates the officer's decisions in these circumstances. Essentially, an certified BTD operator shall administer a breath test, unless in that officer's determination, a breath test is unreasonable. There are at least two categories where a breath test is unreasonable: (1) in situations where the operational ability of the instrument is compromised (discussed more fully in Section 6); and (2) situations in which the testing subject's ability to submit to a test is compromised (discussed below).

The classic case in which the suspect's ability to submit to a breath test is compromised is in situations where blood is (or it is reasonably possible that it is) present in the mouth. This includes a suspect: involved in a recent motor vehicle accident, fight, recent oral surgery, (or any other mouth or facial trauma causing event[6]), etc.

Another common scenario is where the suspect is simply physically unable to submit to a breath test. This may occur in situations where; (1) the suspect's injuries require immediate medical treatment; (2) the suspect is physically handicapped or otherwise disabled; and (3) the suspect may be too intoxicated to exert the necessary physical control to successfully submit to the test.[7] The great majority of the cases, however, do not fall under the above categories, and most subjects will easily be good testing candidates.

Once an certified BTD operator has determined that the subject is an appropriate candidate for breath testing, the certified BTD operator should begin the testing process by the initiation of the 15-minute wait /observation period.[8] The best practice in completing the 15-minute wait /observation periods can be followed in three easy steps:

1. At the testing site [9], the certified BTD operator should power up the Intoxilyzer and may note the time on the Intoxilyzer internal clock. The certified BTD operator must complete a visual inspection of the suspect's mouth at the beginning of the observation period and may use the Intoxilyzer as the time keeping clock for the duration of the 15-minute period.

2. The certified BTD operator must remain in the presence of the test subject for the entire 15-minute observation period (according to the Intoxilyzer clock) that is prior to beginning the test, and observe the subject throughout the entire testing procedure. While the certified BTD operator need not stare incessantly at the suspect for the duration of the observation period. The

[6] Tongue Rings are a special case and are treated differently. See Section 5 for details.
[7] In this situation a question of intent on the part of the suspect may arise and the investigating officer should consider addressing this issue.
[8] It is worth noting that the 15-minute wait /observation period is commonly referenced among current practitioners as the single, most problematic area in breath testing. It is strongly urged that MCJA certified BTD operators pay particular attention to the tenants discussed in this section of the manual.
[9] By not starting the wait /observation period until the testing subject is in front of the Intoxilyzer instrument and the Intoxilyzer clock's time is noted, the investigator prevents a slew of mischief normally inevitable by the defense. It is poor practice to begin the wait / observation period in any location other than the testing site.

subject must be observed in a sufficient manner to determine that they do not violate any of the preconditions required for testing as noted in Section 5.

3. The BTD Operator may enter the subject data before, during or after the 15 minute observation period. If the 15 minute observation period has not lapsed the instrument will perform a countdown until the 15 minutes is complete. The instrument will then allow the subject to submit a breath sample.

(3) The Start-Up Procedure and Data Entry

The Intoxilyzer normally is powered up from **standby mode** by pressing the **start test button** once. The instrument will take several minutes (depending on the surrounding environmental conditions) to enter **ready mode** and become operational. An Intoxilyzer powered up from a "cold" start, will take much longer to become operational. Depending on a department's operational procedures, it may be beneficial to have someone press the start-test button (and allow the Intoxilyzer appropriate warm-up time) once the arresting officer makes the arrest. This assists in ascertaining a test as soon as possible after the arrest and thus lowering the chances of a successful "rising BrAC" defense in cases of a low test.

Data entry must be completed as discussed in Section 5. This is important not only for reasons of evidentiary integrity, but also for administrative necessities as required by the Department of Health and Human Services.[10] The data entry process is essentially self explanatory with the exception of entry of the location of the test, and the law enforcement agency entering the data. These pieces of information are entered in a specific way, which may not necessarily be intuitive, according to the protocols discussed in Sec. 5. Officers are required, as a part of certification, to adhere to those protocols.

(4) Sample Submission: See section 5

[10] DHHS is statutorily responsible for the oversight of the Intoxilyzer testing program.

(5) Associated Paperwork

There are five different print outs associated with a valid test result: (1) the prosecutor's copy; (2) the BMV copy; (3) the officer's copy (4) the site copy; and (5) the subject's copy; each must ultimately end up at a different location. Each copy should have the department's local case number[11], the BTD operator's signature (the prosecutor's and the BMV copy **must** be signed *in the presence* of a notary – the other three copies *do not* need to be notarized) and the last DHS inspection date. The DHS inspection date is found on the sticker on top of the Intoxilyzer and must be within seven months of the current testing date.

1. *The Prosecutor's Copy*: must be signed in the presence of a notary and presented to the DA's office as part of the investigation.
2. *The BMV Copy*: must also be signed in the presence of a notary and forwarded to the Bureau of Motor Vehicle, along with the appropriate form and copy of the officer's report. Note that officers who make an OUI arrest are required to notify BMV in this manner.[12]
3. *The Officer's Copy*: need not be signed in the presence of a notary and is kept as part of the officer's official report.
4. *The Site Copy*: need not be notarized and is kept on file at the Intoxilyzer test site.
5. *The Subject's Copy*: need not be notarized and is given to the suspect at the conclusion of your investigation.

If copies fail to print or are damaged during printing, any of the five originals may be used for notarizing as an original. The designation on the form, " Prosecutor, BMV, Officer, Site, Subject" does not matter in this situation and can be used for any or all five.

> HETL can no longer alter the data, make corrected copies, or change OUIs to TRs after you finalize data on the I-8000. Any inconsistencies or typos need to be addressed by explaining them in the report or a supplemental report. If you cross out and hand write anything on the Intoxilyzer report, it needs to be sworn to/re sworn to after the changes were made.

[11] While there is no current means of inputting this number into the Intoxilyzer, we suggest it be written on the printout by the officer prior to submission for case management/tracking

[12] 29-A M.R.S.A. 2481 (2009). The statute provides in relevant part: "[a] law enforcement officer who has probable cause to believe a person has . . . committed an OUI offense shall send to the Secretary of State a report of all the relevant information . . ."

The 5000EN testing procedures, mostly related to data entry, are outlined here and explained more thoroughly on pages 86-92 of the appendices

Subject Breath Test

1. After pressing the **Start Test** button, the 5000EN should be ready in **3** minutes
2. When the 5000EN has warmed up it is in the **Ready Mode .** The I-8000 uses Standby Mode and moves to Ready Mode also.

Data Entry for the 5000EN

1. **TST**: **TR, AD, OUI, OT** (AD=JUV, CDL, COND) More details provided on page 91. The I-8000 has a drop down menu which lists all options and defaults to OUI.
2. No license scanning of suspect information
3. **SUB DOB**: format is **MM/DD/YY**. I-8000 is MM/DD/YYYY
4. **Arrest Dept**: See shortcut procedure on page 88 or approved list on page 101 I-8000 has a drop down menu with departments
5. **County**: See shortcut procedure on page 90 or approved list on page 101 I-8000 has a drop down menu with counties
6. **VIOL DATE**: format is **MM/DD/YY**. I-8000 is MM/DD/YYYY
7. No proper test within 3 minutes is **INSUFFICIENT sample**. I-8000 is Deficient Sample.
8. The 5000EN printer error messages will display on the 5000EN. The I-8000 printer error messages are displayed on the printer only.
9. Press **F1 to reprint** the last test result which must be done within 60 minutes. I-8000 has more options for reprinting see page 53.

SUBJECT BREATH TEST

1. Obtain the information needed for data entry.
2. Press the **Start Test** button. The Intoxilyzer 8000 should be ready to conduct a test in (1) minute. *In a cold environment the simulator make take longer to warm up to 34 degrees which may delay the start of the test.*
3. Subjects should be asked if they have anything in their mouth such as gum, cough drops, chewing tobacco, etc. Have them remove anything that is present, and advise them not to put anything into their mouth until the test is completed. Ask them to open their mouth so a brief visual exam can confirm that their mouth is empty. In the event the operator notes **loose** devices or objects they should direct the subject to remove such device or objects.
4. When a BTD operator must administer a chemical test to a person who has an oral piercing (i.e. mouth jewelry, tongue studs, cheek or lip piercings, etc.) the first and best choice is to have a blood test administered.

   If a blood test cannot be reasonably obtained, then the BTD operator may administer an Intoxilyzer test to the person in the following manner:

   a. At the Intoxilyzer site, direct the person to remove the piercing
   b. Visually inspect the mouth for any blood or loose items

   ✓ If blood is noted, a breath test cannot be given

   ✓ If the subject does not remove the piercing, the operator must decide if an Intoxilyzer test is appropriate or if this is an act of non-cooperation

   (Note: If at any time during this process a blood technician becomes reasonably available it is recommended to still have the blood tech draw the blood, even if the subject completed the breath test.)

5. Observe subject for 15 minutes prior to the test to make sure that they do not eat, smoke, drink, burp, belch, regurgitate, or place anything in their mouth.

During the 15 minute wait / observation period, and throughout the entire testing procedure, the subject must be within the certified BTD operator's immediate area of control. The subject must be observed in a sufficient manner to determine that they do not" eat, smoke, drink, burp, belch, regurgitate, or place anything in their mouth. **Although the certified BTD operator is not required to stare at the subject during the entire 15 minute observation period, close visual and audible observation is required.**

6. When the instrument has warmed up and is in the **Ready Mode**, push the **Start Test** button. The instrument will now go through a menu of information requests. This information prints out on the subject's breath test report and is stored in the Intoxilyzer's memory. This data is subject to weekly downloading from each Intoxilyzer site by the State of Maine Health and Environmental Testing Lab. This information is used to generate monthly reports for the Bureau of Highway Safety and the Bureau of Motor Vehicles who use the data on OUI arrests. For this reason it is ***extremely important that the information be correctly spelled and in the proper format.*** **Failure to do so means that the Bureau of Highway Safety, which monitors Intoxilyzer usage at each site, will not credit your agency with the correct number or type of tests.**

   DATA ENTRY MENU – The following is a listing of the Intoxilyzer prompts in the order they appear on the instrument display:

- SUB LAST NAME
- SUB FIRST NAME
- SUB MID NAME
- SUB DOB
- SUB SEX
- ARST OFF NAME
- **ARREST DEPT** (PROGRAMMED WITH SITE AGENCY)
- OPER NAME LAST
- OPER NAME FIRST
- OPER NAME MID
- OPER CERT NO.
- STRT WAIT PERIOD
- CITY/TOWN
- STREET

- **COUNTY** (PROGRAMMED WITH SITE COUNTY)
- VIOL. DATE
- VIOL. TIME
- TST TR JUV CDL COND OUI OT
- REVIEW DATA (Y/N)

The subject test data that you enter during data entry will be retained for up to 3 minutes after the test in the I-8000 only.

Pressing the **F5 key** or the **Start Button** ends data entry prompting, the instrument will display "**Data Entry Aborted**", and exits back to the scrolling display. This may be useful if for some reason the operator decides not to continue with a subject test after the Start Test button has been pressed.

Please follow these guidelines for the indicated prompts that tend to be the cause of problems or inconsistencies:

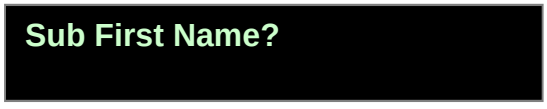
Place the subjects **Operator's License** or **State ID Card** under the 2-D Bar Code Reader near the keyboard.

A "**3 beep tone**" indicates the information has been entered;

* (A "**2-beep tone**" indicates the information **has not** been entered).

Or press **ENTER** to manually enter the required data using the keyboard while following the instrument display.

- SUB LAST, FIRST, MID NAME: Enter subject's legal name from license. If the subject does not have a middle initial, use a dash (-) when answering the SUB MID NAME question.



❖ SUB SEX: Enter M or F.

❖ SUB DOB: MM/DD/YYYY

❖ ARST OFF NAME: Do not enter rank or title. Enter the name you commonly use, but do not use nicknames.

❖ ARREST DEPT: This is the arresting officer's department, not the operator's department. The Intoxilyzer is programmed by the HETL to respond to this prompt with the name of the agency housing the instrument. If the displayed Arresting Department is incorrect, choose the proper agency from the drop down list by using the arrow or pgup/pgdn keys. Press the **ENTER** key to continue to the next prompt.

- **Members of the agency at which the instrument is located**- When the words **"ARREST DEPT"** are displayed **do not type anything**, **just press the ENTER key.** The name of your agency will appear, correctly spelled and spaced, in response to the prompt. If the displayed Arresting Department is incorrect, choose the proper agency from the drop down list by using the arrow or pgup/pgdn keys. Press the ENTER key to continue to the next prompt.

- **Members of an agency outside of which the instrument is located -** When the words **"ARREST DEPT"** are displayed, choose the proper agency from the drop down list by using the arrow or pgup/pgdn keys.

Press the **ENTER** key to continue to the next prompt. The list of acceptable agency entries is included in this manual.

START WAIT PERIOD: The time the 15-minute wait / observation period began is entered here. The message, **"WARNING 15 MINUTE WAIT PERIOD HAS NOT ELAPSED"** will appear on the display before the REVIEW prompt at the end of data entry if the START WAIT time entered was less than 15 minutes from the instrument's current internal time. **If** an operator gets the "**15 minute wait period has not elapsed**" warning and does not correct the start wait time through reviewing the data at that point in time, the Intoxilyzer then starts a **"time remaining**" countdown timer until 15 minutes from the entered start wait period has elapsed by its internal clock. The instrument will not proceed with the subject test sequence until the elapsed time is up. This gives the operator, who suspects a typographical error in the entered Start Wait time, a one time opportunity to make a correction so that their observation period does not turn out to be inordinately long.

- CITY/TOWN: The location of the arrest is entered here, **not** the location of the Intoxilyzer site.

- STREET: The location of the arrest is entered here, not the location of the Intoxilyzer site.

- COUNTY: The Intoxilyzer is programmed by the HETL to respond to this prompt with the name of the county in which the instrument is located. When the word **"COUNTY"** is displayed **do not type anything**, **just press the ENTER key.** The name of the county the Intoxilyzer is located in will appear, correctly spelled, in response to the prompt. If the displayed County is incorrect, choose the proper County from the drop down list by using the arrow or pgup/pgdn keys. Press the ENTER key to continue to the next prompt.

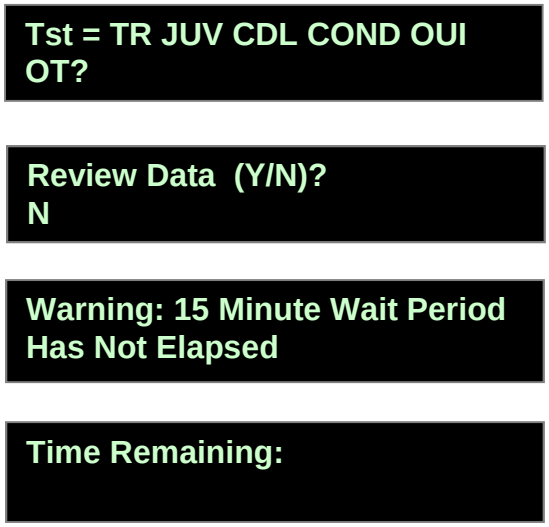
- VIOL DATE: MM/DD/YYYY

- TST = TR JUV CDL COND OUI OT:

"OUI" is the displayed Test default. For other Test types, choose the correct Test from the drop down list by using the arrow or pgup/pgdn keys. Press the ENTER key to continue to the next prompt.

  - TR = training, and should be used for all practice, demonstration, diagnostic, and training tests. One copy of the report will print.
  - JUV = for under 21, zero tolerance violations.
  - CDL = for Commercial Vehicle Drivers License violations.
  - COND = for Conditional License violations.
  - OUI = **Title 29A criminal OUI only**.
  - OT = other, and should be used for all watercraft, ATV, snowmobile, corrections, work release, probation, DHS ordered, court ordered, etc. testing.

Another helpful feature is that the subject test data that you enter during data entry will be retained for up to 3 minutes after the test. This makes it convenient if you must restart the test on a subject for some reason. When you hit the Start Test button again to begin data entry, you will see that your previous entries for those questions will still be there. Just press the Enter key at each question to make the previous entry permanent for the new subject test procedure that you are beginning.



When data entry has been completed, the instrument automatically begins the testing sequence of Air Blank, Diagnostic, Air Blank, ITP (Internal Test Protocol), Air Blank, Simulator Calibration Check, Air Blank, Subject Test 1, Air Blank with 2 minute wait period, Air Blank, Subject Test 2, Air Blank. The instrument will automatically ask for up to 4 subject samples if exception messages nullify one or more of the results.

- ✓ Once the Intoxilyzer prompts for the subject to blow into the mouthpiece, **and the 15-minute wait / observation period has been completed**, place a new mouthpiece on the end of the breath tube. It is not recommended that the subject touch the breath tube or mouthpiece with anything other than their mouth. **The instrument allows up to 3 minutes to receive an acceptable sample**, before it labels it as a "**Deficient Sample**". Replace the mouthpiece with a new one if they are having trouble blowing through it.

- ✓ Advise the subject to blow until the tone stops or until you tell them to stop blowing. Coach them through the test until the reading on the display has leveled off and the 0 has appeared in front of the decimal point. **Continue coaching until the displayed result is unchanging**. If subject stops blowing before the instrument has accepted the sample as complete, **they may take a second breath and continue blowing**. The result on the display will drop with the reintroduction of upper respiratory air before the influx of alveolar air causes it to rise and level off. After each breath sample is complete, remove the mouthpiece and discard prior to the beginning of a new air blank.

- ✓ After the ensuing Air Blank and 2 minute wait period, place a new mouthpiece on the breath tube and obtain a second sample as requested by the Intoxilyzer. The testing procedure may be complete at this point. However, the Intoxilyzer will continue to request **up to 4 samples until it obtains 2 acceptable results that are within 0.020 of each other** before ending the test sequence. A new mouthpiece is used for each additional sample The **final reported BrAC is the average of the 2 lowest acceptable results, with the third decimal place dropped.**
- ✓ When the testing procedure is complete, the instrument will **automatically print 5 copies** of the subject test report on the external printer. These are labeled at the bottom of each sheet for Prosecutor, Secretary of State, Arresting Officer, Intoxilyzer Site, and Subject**. Notarize the copies for the District Attorney and Secretary of State** (others may be done if you wish).
- ✓ If the external printer runs out of paper while printing the subject test report, just place more paper in the paper tray and printing will automatically continue.
- ✓ **To reprint the last test** of any type done on the I-8000, **press the F1 key** and choose S = subject, C = calibration, or D = diagnostic to be reprinted.
- ✓ **Recall –** Use this option **ONLY** if you need to reprint a subject test PREVIOUS to the very last one done on the instrument. To use this feature **press the Esc key twice** in rapid succession to get to a menu of letters. **Press "R" and Enter** to get to the Recall function. **Use the PgDn/Up key** to get to the appropriate date for the test you want to reprint and **press Enter**. Then, at the "Number of Records" display, **press Enter again**. Use the PgDn/Pg Up keys to find the appropriate test by subject last name, and **press Enter** to print it out.

If an **ERROR MESSAGE** appears on the printer display at any time, check to be sure the power is on to the printer, and that the printer cable is securely connected at both ends.

- ✓ If the **LOAD PAPER** message appears on the printer display at any time, place more paper in the paper tray of the printer.

Section 6 – Instrument Specifications and Messages I-8000

The 5000EN instrument Specifications and Messages are outlined here and explained more thoroughly on pages 93-96 of the manual

Functional

1. (#9) The 5000EN uses 5 IR filters to measure infrared absorption at specific wavelengths yielding reference, alcohol, and interferent detection.

Performance

1. Instrument **range = 0.00-0.45**g/210L (BrAC). The I-8000 is 0.000-0.600

Diagnostics.

1. The 5000EN has different diagnostics terminology (see page 94)
2. If subject refuses test, press the **"R" and Enter** key. (I-8000 "R" only)
3. 5000EN **Insufficient Sample** = I-8000 Deficient Sample
4. When testing sequence is complete, the instrument will return to **Standby Mode**

Calibration Check is same on both

Test Errors are now **Test Exceptions** on both instruments.

1. The 5000EN has different Test Exception terminology (see page 97-99)
2. **Invalid Sample** procedure and policy is the same for both instruments
3. The 5000EN "**Insufficient Sample**" = I-8000 "Deficient Sample"
4. When an interferent is detected the 5000EN may subtract the interferent and print the results with Interferent Subtracted" on the test page. The I-8000 will stop the test and print "Interferent Detected" on the test page.

Subject Test:

1. **Internal Standards** are similar to the ITP in the I-8000**.** The 5000EN uses 3 internal standards that correspond to values of 0.100, 0.200. 0.300.

INTOXILYZER 8000 SPECIFICATIONS

FUNCTIONAL –

1. Audible tones signal the completion of an operation, the presence of a malfunction, an incorrect operational procedure, or an unfulfilled test requirement.
2. An external printer provides a multi-copy printed record of test results, including time, date, subject data, and instrument model and serial number.
3. A 16 character display that relates which operations the instrument is performing, alerts the operator to required actions, and gives the alcohol test concentration in grams of alcohol per 210 liters of breath.
4. The instrument is originally factory-calibrated by the manufacturer.
5. Breath Sampling: The instrument automatically senses alveolar air using slope detection in conjunction with a minimum volume, minimum flow rate, and minimum time requirement. The flow sensor allows for breath volume to be measured and printed for each breath sample.
6. The instrument is equipped to recirculate simulator vapor during the calibration check mode to extend the life of the simulator solution.
7. Standby mode reduces dust accumulation in the instrument and increases component life by shutting down non-vital functions during inactive periods.
8. An internal modem allows the instrument to communicate with a remote computer.
9. Two IR detectors are used to measure infrared absorption at specific wavelengths yielding reference, alcohol, and interferent detection.

The *5000EN uses 5 IR filters to measure infrared absorption at specific wavelengths yielding reference, alcohol, and interferent detection*

PERFORMANCE –

1. Instrument **range = 0.000 – 0.600**g/210L (BrAC) *(5000EN is 0.00-0.45)*
2. Instrument **accuracy = ± 0.010**gms/210L (BrAC) or ± 5% (whichever is higher) per HETL
3. Instrument **precision = ± 0.010**gms/210L (BrAC) or 5% (whichever is higher) per HETL

TONES –

1. A beep sounds after the completion of each operation (mode).
2. A continuous tone sounds while a subject blows into the mouthpiece.
3. A high-low tone sounds intermittently for 5 seconds in the event of a malfunction, incorrect operational procedure, or unfulfilled test requirement.

DISPLAYED MESSAGES AND COMMANDS

DIAGNOSTICS

The Intoxilyzer 8000 automatically performs a DIAGNOSTIC TEST when the power switch is turned on, the START TEST button is pressed to initiate the instrument from NOT READY or STANDBY modes, or when a SUBJECT TEST is initiated. The instrument will cycle through each Diagnostic function and display PASS if the instrument is functioning properly. If any of the diagnostics FAIL, the DIAGNOSTIC TEST may be restarted by pressing the START TEST button.

If the DIAGNOSTIC test fails repeatedly, contact the HETL for service.

- **"PROM CHECK ####"** – The instrument checks to make sure that the program (breath test sequence, calibration check procedures, etc.) located in the instrument EPROM is valid.

- "**VOLTAGE/CURRENT**" – The instrument verifies that current and voltage values are within limits.
- "**RAM TEST**" – The instrument verifies the RAM (Random Access Memory) for possible failure. This is the data area where calculations and test data is stored.

- "**EEPROM TEST**" – The instrument verifies breath test sequence, calibration data, location and serial number settings.
- "**RTClock TEST**" – The instrument verifies current time and date settings for the Real Time Clock.
- "**DSP TEST**" – The instrument verifies the IR source is functioning and within limits, the processor communications are operational and the installed software version.
- "**ANALYTICAL TEST**" – The instrument verifies the analytical bench stability is within limits on the 3um and 9um channels.
- "**MODEM TEST**" – The instrument verifies the modem is present and responding.
- "**TEMP REG TEST**" – The instrument verifies both cell and breath tube temperatures are within limits and stable.
- "**READY MODE**" When the diagnostics of the instrument are successfully completed the instrument will enter "READY MODE" with the time, date and "PUSH BUTTON TO START" displayed.
- Subject test. The acceptable range of + 0.010 of the target value of the simulator solution is set in the instrument software. The subject test procedure will halt if this check fails.
- **"PLEASE BLOW UNTIL TONE STOPS /R**" – Beginning when this command appears on the display, the subject has 3 minutes to deliver an adequate breath sample. At this point, carefully place a new mouthpiece onto the instrument breath tube. Instruct the subject to take a deep breath and exhale into the mouthpiece of the instrument. The subject will hear a tone when they are blowing into the instrument properly, and should continue blowing until the tone stops. The instrument checks for minimum flow rate, for sample volume, and for level slope of the sample. To meet this criteria the subject must continue to blow for a minimum of 4 seconds.

  If the subject refuses the test, press the "R" key. **("R" Enter key for 5000EN)** The display will show SUBJECT TEST REFUSED and it will also be printed on the report. **–** If a subject begins to give a breath sample and stops before the sample criteria are completed, the instrument will display this prompt, with a continued short beep, indicating that the subject should begin blowing again.
- **"SUBJECT TEST RSLT. ###" –** The value of the subject's sample will be displayed as the subject blows into the instrument. The result will rise, fall, or stay

constant as the instrument continuously analyzes the sample. When a 0 appears to the left of the decimal point, the test has met the volume and slope criteria for an acceptable test. Allow the subject to continue to give a sample. When the subject has exhaled completely and the test criteria are met, the tone will stop and the display will go momentarily blank. The tone will then sound shortly, and the final breath sample result will be displayed and printed on the report.

- **"DEFICIENT SAMPLE" – (INSUFFICIENT SAMPLE on the 5000EN)** In the event that the subject fails to provide an adequate breath sample within 3 minutes, this message will appear accompanied by the high-low tone, DEF * will be printed on the report accompanied by an * alongside the subject test. *Deficient Sample will appear on the bottom of the report.
- When the testing sequence is complete, the instrument will return to "READY MODE" with the time, date and "PUSH BUTTON TO START" displayed. **5000EN returns to Idle Mode**

CALIBRATION CHECK -

- **"SOLUTION VALUE?" –** The correct value (currently 0.090) is the default value already programmed into the Intoxilyzer, and will be accepted by pressing Enter. If the default value is for some reason no longer the correct one, then the operator must enter the value of the simulator solution to be used for the calibration check. It must be entered in the following format to be accepted by the instrument: **0. ### (0.090)**
- **"LOW REF VALUE" –** This sets the low end of the acceptable range for the simulator test. Just press the ENTER key to accept the pre-programmed setting. It is set by default to 0.010.
- **"HIGH REF VALUE" –** This sets the high end of the acceptable range for the simulator test. Just press the ENTER key to accept the pre-programmed setting. It is set by default to 0.010.
- **"PRINT HOW MANY" –** The operator must enter the number of copies of the calibration check to be printed.

TEST EXCEPTIONS –

- "**VOLTAGE/CURRENT TEST FAIL**" – Voltages and currents were not sufficient to operate the instrument. Press the START TEST button to restart.
- "**EEPROM TEST FAIL**" – The processor failed to verify the check sum for calibration, settings, serial number and location in the EPROM of the instrument. Press the START TEST button to restart.
- "**RAM TEST FAIL**" – The instrument's random access memory has insufficient memory. Press the START TEST button to restart.
- "**TEMP REG TEST FAIL**" – The sample chamber and breath tube are not warm enough to perform a test. Press the START TEST button to restart.
- "**DSP TEST FAIL**" – The Digital Signal Processing determined the IR source in not functioning or not within limits. Press the START TEST button to restart.
- "**ANALLYTICAL TEST FAIL**" – The 3.4 and 9.4 wavelengths are unstable. Press the START TEST button to restart.
- "**MODEM TEST FAIL**" – The internal modem is not operational (phone line connection not required). Press the START TEST button to restart.
- "**RTCLOCK TEST FAIL**" – An invalid date or time has been detected in the real time clock. Press the START TEST button to restart.
- "**UNSTABLE SIGNAL**" - The signals from the detector are outside predefined limits. The limits are embedded to ensure readings are within a valid range. **Press the START TEST button to restart.**
- "**DATA ENTRY ABORTED**" - The START TEST button or F-5 key was pushed during a SUBJECT TEST or CALIBRATION CHECK prior to the AIR BLANK following REVIEW DATA Y/N. The instrument will display DATA ENTRY ABORTED and a report is not printed.
- "**SEQUENCE ABORTED**" - The START TEST button or F-5 key was pushed during a SUBJECT TEST or CALIBRATION CHECK after the AIR BLANK following REVIEW DATA Y/N. The instrument will display SEQUENCE ABORTED and print *ABT beside the AIR BLANK. *SEQUENCE ABORTED will be printed on the bottom of the report.
- "**INVALID SAMPLE**" – The instrument detected an abnormal breath pattern or residual mouth alcohol. If residual mouth alcohol is suspected, observe the

suspect for another 15-minute observation period before beginning a new breath test.

Note: It is the policy of the Maine Criminal Justice Academy that a breath sample that indicates an "Invalid Sample XXX" does not absolutely void the entire test result if the Intoxilyzer continues the testing sequence and prints a final BrAC result with 2 acceptable samples.

There are situations where one of the breath samples in a testing sequence indicates an "Invalid Sample XXX" and the Intoxilyzer finds 2 or more samples within that sequence that meet the standard and print a final test result. These flagged samples may be caused by puffing into the instrument or by moving or manipulating the mouthpiece during a test. The Intoxilyzer is designed to flag breath samples Affected by such actions.

If the certified BTD operator suspects residual mouth alcohol, the test must be terminated and a new observation period and test must be conducted.

If the certified BTD operator suspects the suspect of puffing into the instrument or <u>manipulating the mouthpiece</u> during a test, the certified BTD operator should articulate these observations in their report and consider the following:

1. **The certified BTD operator may warn the suspect that these actions are acts of non-cooperation and will result in a refusal if continued. The officer may then continue testing the suspect if the Intoxilyzer allows them to continue.**
2. **The certified BTD operator may warn the suspect about acts of non-cooperation listed above, start a new observation period and administer a new test.**
3. **The certified BTD operator may end the test and mark the test as a refusal due to non-cooperation.**

Officers should be aware that their agencies and the prosecutorial districts throughout the State have various policies on the "Invalid Sample XXX" issue relating to breath testing. Some District Attorneys require a new wait period and test be started with all "Invalid Sample XXX" warnings regardless of the cause.

- "**RFI DETECT**" - Radio frequency interference is present. The instrument aborts the test, sound a high-low tone and prints RFI DETECT on the report.[13]
- "**DEFICIENT SAMPLE**" - The subject did not provide an adequate breath sample within 3 minutes. The instrument displays DEFICIENT SAMPLE, sounds a high-low tone, completes the test sequence, and prints DEFICIENT SAMPLE on the report.
- "**INTERFERENT DETECT**" – The subject's breath sample or a simulator vapor contains a substance (such as acetone) that absorbs infrared light in the same wavelength range as ethanol. These substances are categorized as interferents for the purposes of breath alcohol analysis. The Intoxilyzer 8000 can detect interferents by analyzing the response of each detector. When an interferent is detected, the instrument will display INTERFERENT DETECT, sound a high-low tone, and print INTERFERENT DETECT on the report.

  The 5000EN uses a different system and may subtract the interferent

- **"AMBIENT FAIL" –** The instrument detected a substance in the room air. Strong odors from painting or cleaning products can cause this. The instrument displays AMBIENT FAIL, aborts the test, sounds a high-low tone, and prints AMBIENT FAIL on the report.
- **"RANGE EXCEEDED" –** The test results exceed the instrument's range of >0.650. (0.045 in the 5000EN) The instrument aborts the test, sounds a high-low tone, and prints RANGE EXCEEDED.
- **"CAL CHECK OUT OF TOLERANCE" –** The result for one of the internal standards is outside of the allowable ± 0.005 range around its target value. The Intoxilyzer aborts the test, sounds a high-low tone, and prints INVALID TEST, CAL CHECK OUT OF TOLERANCE on the report. This may also occur if a simulator test is out of it's allowable range of ± **0.010.**
- **"IMPROPER SAMPLE" –** The suspect blows into the mouthpiece before the instrument asks for a breath. The instrument aborts the test, sounds a high-low tone, and prints IMPROPER SAMPLE.

[13] The Intoxilyzer is programmed to detect RFI and stop the test if detected. Radios and/or cell phones will not impact test results, but due to the sensitivity of the instrument, could cause it to cancel the test and print "RFI DETECT" on the report. A common misconception or defense tactic which is not true is that the use of a cell phone or radio near the Intoxilyzer during the test will somehow increase or alter the test result.

- **"PURGE FAIL" –** The instrument cannot completely clear the alcohol reading from the sample cell. This may occur with a suspect too close to the instrument or other odors in the room.
- **"OUTSIDE ARREST WINDOW" –** The instrument detects a time or date discrepancy between the entered data and its internal clock. Repeat the subject test with an appropriate date and time. The most common cause is an operator typing in a start wait time that is slightly ahead of the instruments internal time. Military time and standard time in the same test sequence can also be a cause.
-
- **If the ITP test fails repeatedly, contact the HETL for service.**

SUBJECT TEST –

- **"AIR BLANK" –** The instrument is purging the sample cell, breath pathway, and taking a reference value of the ambient air. An air blank should always have a final result of 0.000, showing no alcohol in the sample chamber.
- **"ITP #" –** The instrument checks and displays the internal standards. Internal 1 and 2 correspond target to values of 0.040 and 0.080 respectively. The acceptable range of ± 0.005 around each target value is programmed into the Intoxilyzer by the manufacturer. This is a type of calibration check done at the time of each subject test.

The 5000EN uses 3 internal standards that correspond to values of 0.100, 0.200. 0.300.

- **"CAL CHECK" –** A single test done with the simulator solution at the time of the subject test. This is another type of calibration check.

Section 7 – Administrative Procedures

Implied Consent.

Maine law permits the driver licensing authority, the Secretary of State, to take certain administrative actions against a driver's license. These actions are not part of the criminal actions taken pursuant to any arrest for OUI. They may occur for a .00 violation or a .04 commercial vehicle violation. Your local District Attorney and Court may have their own special process or requests related to some of these issues. We offer guidance as to the most common and acceptable procedures.

Duty to Submit/Implied Consent Form (Form DI-140)

It is not required for the arresting officer to read the Duty to Submit form to a subject prior to any breath test. We recommend not reading the form as it may encourage the subject not to take the test. If the subject refuses the test the form must be read. The reading of the form after the subject refuses makes it clear that the subject was advised of the administrative and legal consequences of any refusal.

A refusal could occur if the subject refuses to give a chemical test to the officer's satisfaction. This may be a flat out refusal or may occur when the subject pretends to blow, intentionally vomits or burps, or otherwise seeks to delay or cause an adverse test. If any of these actions occur prior to the reading of the Duty to Submit form, the officer must read the form aloud and ask subjects to sign the form. If they refuse to sign, write "refused to sign" in the signature area.

For refusals, sign the form in the presence of a Notary and have them Notarize it. Since DA's will want proof of the refusal, they will also want a copy with the report.

NOTE: If subjects decide to submit to a test within a reasonable time frame, it should be allowed. A reasonable time frame would be prior to their leaving your immediate observation during the arrest processing.

If a subject initially refuses the Intoxilyzer test, we recommend going through the data entry process and waiting the 15 minutes until the test is called for. Offer the test again. The subjects comply about 50% of the time. If they still refuse, you can print a hardcopy of the refusal for evidentiary purposes.

Department of the Secretary of State
Bureau of Motor Vehicles

REFUSAL

LAW ENFORCEMENT OFFICER'S REPORT RELATING TO IMPLIED CONSENT

NAME: _____ **DATE OF BIRTH:**_____

STREET ADDRESS: _____**DATE OF OFFENSE:**_____

CITY: _____**TIME OF OFFENSE:**_____

STATE/ZIP CODE:_____**PLACE OF OFFENSE:**_____

1. By operating or attempting to operate a motor vehicle in this State you have a duty to submit to and complete chemical tests to determine your alcohol level and drug concentration.
2. I will give you a breath test unless I decide it is unreasonable, in which case another chemical test will be given. If you are requested to take a blood test you may ask that a physician perform the test if a physician is reasonably available.
3. If you fail to comply with your duty to submit to and complete chemical tests, your driver's license or permit or right to apply for or obtain a license, will be suspended for a period up to 6 years. Your failure to submit to a chemical test is admissible against you at any trial for operating while under the influence of intoxicating liquor or drugs. If you are convicted of operating while under the influence of intoxicating liquor or drugs, your failure to submit to a chemical test will be considered an aggravating factor at sentencing which in addition to other penalties, will subject you to a mandatory minimum period of incarceration.
4. If you are 21 years of age or older, an additional 275 days of suspension will be imposed if you had a passenger under 21 with you in the vehicle at the time of the offense. If you are less than 21 years old, an additional 180 days of suspension will be imposed if you had a passenger under 21 with you at the time of the offense.

I have been advised of the consequences listed in paragraphs 3 and 4 above of failure to comply with the duty to submit to and complete a chemical test at the request of an officer and DO NOT WISH TO SUBMIT TO A TEST.

_____
(Signature of Person Refusing Test)

TO THE SECRETARY OF STATE:

This officer had probable cause to believe that the above-named person was operating or attempting to operate (check <u>all</u> boxes that apply):

OUI -ALC	☐	a motor vehicle while under the influence of intoxicants
ANY ALC COND	☐	a motor vehicle while having an alcohol level of more than 0.00 grams per 100 milliliters of blood or 210 liters of breath with a conditional license
DRUGS	☐	a motor vehicle while under the influence of drugs
ALC LEVEL .04/CMV	☐	a commercial motor vehicle while having an alcohol level of 0.04 grams per 100 milliliters of blood or 210 liters of breath, or
HAZ MAT	☐	containing hazardous materials while having an alcohol level of 0.04 grams per 100 milliliters of blood or 210 liters of breath
ANY ALC/MINOR	☐	a motor vehicle while having an alcohol level of more than 0.00 grams per 100 milliliters of blood or 210 liters of breath while under 21 years of age
PASS<21 YRS	☐	a motor vehicle with a passenger under 21 years of age
FATAL	☐	a motor vehicle involved in an accident where a death has or will occur

A law enforcement officer informed the above-named person of the duty to submit and complete a chemical test and of the consequences of the failure to comply with that duty. The above-named person, after being informed, failed to submit to and complete a chemical test.

Sworn before me under oath:

_____ _____

Notary Public — Signature of Officer

Dated: _____ _____

Officer's Name Printed or Typed

End Commission Date: _____ _____

Department of Officer

THIS FORM MUST BE RETURNED TO THE SECRETARY OF STATE IMMEDIATELY

Bureau of Motor Vehicles, 29 State House Station, Augusta, Maine, 04333-0029

Law Enforcement Officer's Report to the Secretary of State (Form DI-27)

The second form is the Law Enforcement Officer's Report to the Secretary of State. This form is used by that office to initiate administrative actions against the drivers license. The officer must write a brief statement of probable cause on the form and staple a copy of the arrest report to the form. If the subject refuses the breath test, send the Refusal form along with your report.

NOTE:

As with the duty to submit, this form must be signed in the presence of and be signed by a Notary Public. This form is only sent to the Secretary of State, Bureau of Motor Vehicles.

If the subject requests a hearing, you will be subpoenaed as a witness to testify about your probable cause to arrest.

Statement of Probable Cause

"My basis for probable cause is contained in the attached copy of the OUI report, the contents of which are based on knowledge and information that I believe to be true and are incorporated herein by reference and are subject to my undersigned oath".

Department of the Secretary of State
Bureau of Motor Vehicles

INTOXICANT LEVEL

LAW ENFORCEMENT OFFICER'S REPORT TO THE SECRETARY OF STATE

NAME: _____ **DATE OF BIRTH:**_____

STREET ADDRESS: _____ **TIME OF OFFENSE:**_____

CITY: _____ **DATE OF OFFENSE:**_____

STATE/ZIP CODE: _____ **PLACE OF OFFENSE:**_____

THE ABOVE-NAMED PERSON OPERATED OR ATTEMPTED TO OPERATE (check all boxes that apply):

ALC LEVEL 0.08 grams	☐	a motor vehicle while having an alcohol level of 0.08 grams or more of alcohol per 100 milliliters of blood or 210 liters of breath
ANY ALC COND	☐	a motor vehicle license while having an alcohol level of more than 0.00 grams per 100 milliliters of blood or 210 liters of breath with a conditional license
PASS< 21 YRS	☐	a motor vehicle with a passenger under 21 years of age
DRUGS	☐	a motor vehicle while having a positive drug or metabolite concentration level
ALC LEVEL 0.04 grams-CMV	☐	a commercial motor vehicle while having an alcohol level of 0.04 grams or more of alcohol per 100 milliliters of blood or 210 liters of breath
ALC LEVEL 0.04 grams-HAZMAT	☐	a commercial motor vehicle containing hazardous materials while having an alcohol level of 0.04 grams or more of alcohol per 100 milliliters of blood or 210 liters of breath
ANY ALC MINOR	☐	a motor vehicle while having an alcohol level of more than 0.00 grams per 100 milliliters of blood or 210 liters of breath while under 21 years of age
FATAL	☐	a motor vehicle involved in an accident where a death has or will occur

OFFICER'S STATEMENT OF PROBABLE CAUSE: _____

_____

_____

_____

(Continue statement on reverse)

Sworn before me under oath:

_____ _____

(Notary Public) (Signature of Officer)

Dated: _____ _____

(Officer's Name Printed or Typed)

End Commission Date: _____ _____

(Department of Officer)

THIS FORM MUST BE RETURNED TO THE SECRETARY OF STATE IMMEDIATELY

Bureau of Motor Vehicles, 29 State House Station, Augusta, Maine, 04333-0029

DI-27 Rev. 01/2013 Telephone: 207-624-9000 Extension: 52106

Web: www.maine.gov/sos/bmv

WHAT OFFICERS CAN EXPECT AT BMV HEARINGS

Dress and Demeanor

1. A tie or uniform is not required, although recommended.
2. Be prompt and prepared for the hearing.
3. Be sure to use titles and surnames when testifying.

Report Writing

1. Outline vs. long report
2. Incorporation by reference

> "My basis for probable cause is contained in the attached copy of the OUI report, the contents of which upon knowledge and information that I believe to be true, are incorporated herein by reference and are subject to my undersigned oath."

Testifying

1. General:

    1) Review your report and all pertinent Intoxilyzer reports before the hearing starts. Be able to define any error messages that appear on the Intoxilyzer printout .
    2) The use of notes during the hearing is permitted.
    3) Your preparation will bear on your credibility.
    4) If an objection is raised, stop talking and wait for instructions from the Hearings Examiner.
    5) Some participants to the hearing may be sequestered.
    6) Hearsay evidence may be admissible if it is reliable, but cannot be the sole decision making point.

2. Direct:
    1) Be prepared to provide a narrative statement.
    2) The reason to stop the vehicle may not be applicable unless it is specific to the OUI.
    3) Make and testify to observations beyond Field Sobriety Tests.
    4) Use common sense when testifying to FST's.
    5) In order to utilize SFST training, you must have completed SFST training, 35 field tests, and passed the proficiency evaluation. You must be able to explain, demonstrate and interpret the SFST process. Ask the subject about drug or medicine use. The Secretary of State is specific to alcohol (except refusals and fatals).
    6) When does your probable cause end?
    7) When is implied consent required ?
    8) When are other witnesses necessary ?
        - Witness to operation (when there's no admission).
        - Intoxication of operator (if fail to complete test).
    9) Oral exam questions may or may not be admitted depending on issues contested.

3. Cross Exam:

    1) Answer only the questions asked.
    2) Show confidence in your responses.
    3) Don't embellish, stretch or exaggerate during testimony.
    4) Don't rush your testimony, think about your answer before replying.
    5) Don't argue with counsel during testimony.
    6) Be patient when testifying.
    7) Let the attorney finish asking the question before you answer.
    8) If your answers are not clear, correct or explain them properly during redirect.

Close

1. You don't get a turn to close.
2. Don't be alarmed.

Losing Cases beyond Your Control

1. P.C. - you won't lose many hearings if you do your job well.
2. 05% - loophole in p.c. issue. .08% standard if test is high.
3. 05% - refusal - p.c. for conditional status necessary.
4. B.A.C.- chemist may testify.
5. Intoxilyzer problems (malfunctions)

   If a malfunction is known choose another test.

   If a malfunction is not known you may loose the case.
6. Alcohol specific - The Secretary of State doesn't do drugs (except refusals and fatals)

Do's and Don'ts

Do prepare for your hearing.

Do use notes when needed.

Do limit testimony to relevant areas.

Do testify to observations beyond FST.

Do use common sense when administering FST.

Do know basis for HGN decision.

Do be patient, calm.

Do answer only what asked on cross exam.

Do offer follow up on redirect (if needed).

Do speak up for clarity of the record.

Do use proper names and titles on record.

Do call if you will be late or can't attend.

Don’t lose composure.

Don’t argue with counsel.

Don’t embellish, exaggerate or stretch to make a point.

Don’t rush answers.

Don’t talk while others are talking.

Don’t offer information beyond what is asked unless it is important to your case.

Don’t talk to the Hearings Examiner about the case before the hearing or if a decision is pending.

You may take notes during the hearing.

You may refer to your report.

You may leave after your testimony with the permission of Hearings Examiner.

REQUEST A TRANSCRIPT OF THE HEARING. THE DISTRICT ATTORNEY WILL WANT IT. THE DEFENSE ATTORNEY WILL USE IT TO IMPEACH YOUR TESTIMONY AT TRIAL.

Section 8 – Legal Issues

INTOXILYZER CASE LAW

State v. Moore, 307 A.2d 548 (Del. 1973)

- The Intoxilyzer performs “chemical analysis”.
- The burden is on the defendant to refute the reliability of the Intoxilyzer with an expert witness.

Best v. State, 328 A.2d 141 (Del. Super. 1974)

- The burden is on the defendant to refute the reliability of the Intoxilyzer with an expert witness.

People v. Miller, 52 Cal.App.3d 666(1975)

- The Intoxilyzer result is not excludable merely because the air sample cannot be preserved for future re-testing.

People v. French, 77 Cal.App3d 511 (1978)

- The court retains the discretion to admit the result as relevant and probative.
- The ruling established 2 tests within 0.02 of each other.

State of Maine v Pickering, 1983

- The ruling established a two (2) test procedure in Maine.

State of Maine v. Jordan, 1989

The ruling established that" any breath test that meets the requirements of 29 MRSA 1312 (6) is *prima facie* evidence of a blood-alcohol level in any court. Evidence addressing the accuracy and reliability of the result of a properly administered test creates an issue of fact to be considered by the jury in weighing the evidence."

TESTIMONY and DISCOVERY

Be aware of changing discovery rules and what you must provide the District Attorney for trial. The MCJA processes over 800 Freedom of Access Act requests annually from defense attorneys looking at your training records for Breath Testing Device certification and SFST.

Video and audio recordings that you make of the defendant are discoverable. We are still losing trials because the officer did not perform SFST's correctly or left the booking room area while the defendant was between tests on the Intoxilyzer.

District Court

Routine case – All you need is the arresting officer:

1. Where was the instrument located?
2. How far was the instrument from the point of arrest?
3. How long did it take to reach the instrument?
4. What is the common name for the instrument?
5. Did this particular instrument bear a stamp of approval from the Department of Human Services?
6. What was the date of the stamp?
7. Who actually operated the instrument?
8. Did you observe the test being taken?
9. Did the defendant blow a breath sample into the instrument?
10. Did the instrument produce a hard copy numerical result after the defendant blew a breath sample?
11. Introduce: The Operator BTD Certification card from the Maine Criminal Justice Academy
12. Introduce: The test result signed and sworn to by the certified operator

Superior Court
All Cases

Arresting Officer

State Chemist – Robert Morgner

Local Intoxilyzer Site Coordinator – extremely rare that they are called to testify

Actual BTD Operator

Arresting Officer

1. Where was the instrument located?
2. How far was the instrument from the point of arrest?
3. How long did it take to reach instrument?
4. What is the common name for the instrument? (I-8000 or 5000EN)
5. Who actually operated the Intoxilyzer?

State Chemist

Local Intoxilyzer Site Coordinator

1. Do you qualify as an operator / tester?
2. What is your history of formal training and practical use?
3. Discuss the operating history of this Instrument.
4. Describe how a test is done.
5. Describe the testing solution procedures.
6. Refer to your records to see how the instrument was functioning during the week of the defendant's test. M.R.Evid 803(b). Records of regularly conducted business.
7. Did you form an opinion as to the operating condition of the instrument during the week in question?
8. What was that opinion?

Intoxilyzer Operator (if also Arresting Officer)

1. Do you qualify as an operator?
2. List your formal BTD training – Maine Criminal Justice Academy, successful completion of certification.

3. Give a history of your practical use with the Intoxilyzer.
4. Discuss the operating procedures of the Intoxilyzer.
5. How were you trained to set up the instrument for a breath test?
6. Direct the operators attention back to the date of the arrest.
7. Preparation of the instrument for the test:

    a. Did you do the 15 minute observation period and set the instrument up for a test?
    b. How? As you had been trained to do so?
    c. Did you reach an opinion as to the operating condition of the instrument?
    d. What was that opinion?

8. Did you operate the instrument while the defendant blew a breath sample?
9. Did the defendant blow properly?
10. How long after the arrest was this breath sample taken?
11. Did the Intoxilyzer produce a reading after the defendant completed blowing their breath sample?
12. Were there any exception messages and, if so, what do they mean and what did you do about them?
13. What was that reading?

Intoxilyzer Operator (Other than Arresting Officer)

1. Do you qualify as an operator?
2. List your formal training – Maine Criminal Justice Academy, successful completion of certification.
3. Give a history of your practical use with the Intoxilyzer.
4. Discuss the operating procedures of the Intoxilyzer.
5. How were you trained to set up the instrument for a breath test?
6. Direct the operators attention back to the date of the arrest.
7. Were you on duty, and if so, where? List the nature of your duties?
8. Did you observe the arresting officer and the defendant in the Intoxilyzer room?
9. Did you do the 15 minute observation period and set the instrument up for a test?

a. How? As you had been trained to do so?

b. Did you reach an opinion as to the operating condition of the instrument?

c. What was that opinion?

10. Did you operate the instrument while the defendant blew a breath sample?
11. Did the defendant blow properly?
12. Did the Intoxilyzer produce a reading after the defendant completed blowing the breath sample?
14. Were there any exception messages and, if so, what do they mean and what did you do about them?
15. What was that reading?

Section 9 – Appendices

SUBJECT TEST SAMPLES

John A. Doe male DOB: 01-01-1980
(TST) = TR

Jane Doe female DOB: 01-01-1995
(TST) = TR

Jane has no middle initial and is a REFUSAL on the second breath sample *

CALIBRATION TEST

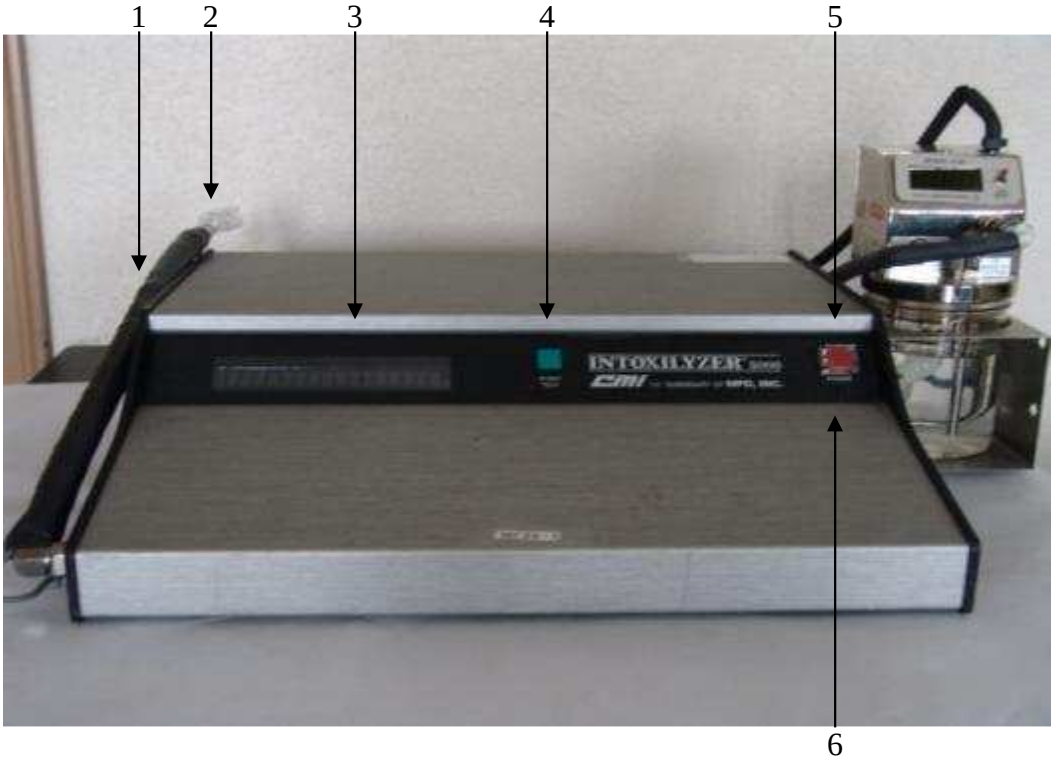
One wet bath calibration check

The calibration check can be accessed by tapping the escape key twice , choose “C” for calibration and accept the preset values by pressing “enter” each time until the instrument begins the first air blank. When the calibration check is complete you will have to choose the number of copies you wish printed. Choose one (1) in most situations.

EXTERNAL CHARACTERISTICS OF THE INTOXILYZER 5000-EN

To familiarize yourself with the parts, controls and indicators of the Intoxilyzer 5000-EN, refer to the illustrations and cross-referenced explanations below.

1. **Breath Tube –** A heated, reinforced plastic tube through which the subject blows into the sample chamber.
2. **Mouthpiece –** A disposable, clear plastic trap that fits into the end of the breath tube. It accepts the subject's breath and prevents substances such as saliva and vomit from entering the instrument.
3. **Digital Display –** A 16 character alphanumeric readout that relates which operations the instrument is performing, alerts the operator to required actions, and gives the alcohol test concentration in weight per volume.
4. **Start Test Button –** A push button switch that is used to bring the instrument out of Standby and initiates the testing sequence.
5. **Power Switch –** A push button switch that is used to turn the electrical power to the instrument on or off.
6. **Power LED –** A light that indicates when the instrument power is turned on.



7. **Heated Simulator Hose Connector –** Provides power and temperature control for heated simulator tubing.

8. **AC Power Connector –** Provides 120V AC power to a simulator or other accessory.

9. **Fuses –** The instruments main 3 amp fuses.

10. **Power Jack –** This is where the electrical power cord for the instrument is plugged in.

11. **Reset Switch –** A rocker switch that, when pressed and released, cancels all instrument processes and returns the instrument to its start up diagnostics routine.

12. **Simulator Return Port –** This port is used for the recirculation of vapors from a simulator. A hose from this port attaches to the top of the simulator where alcohol vapor is returned from the sample chamber.

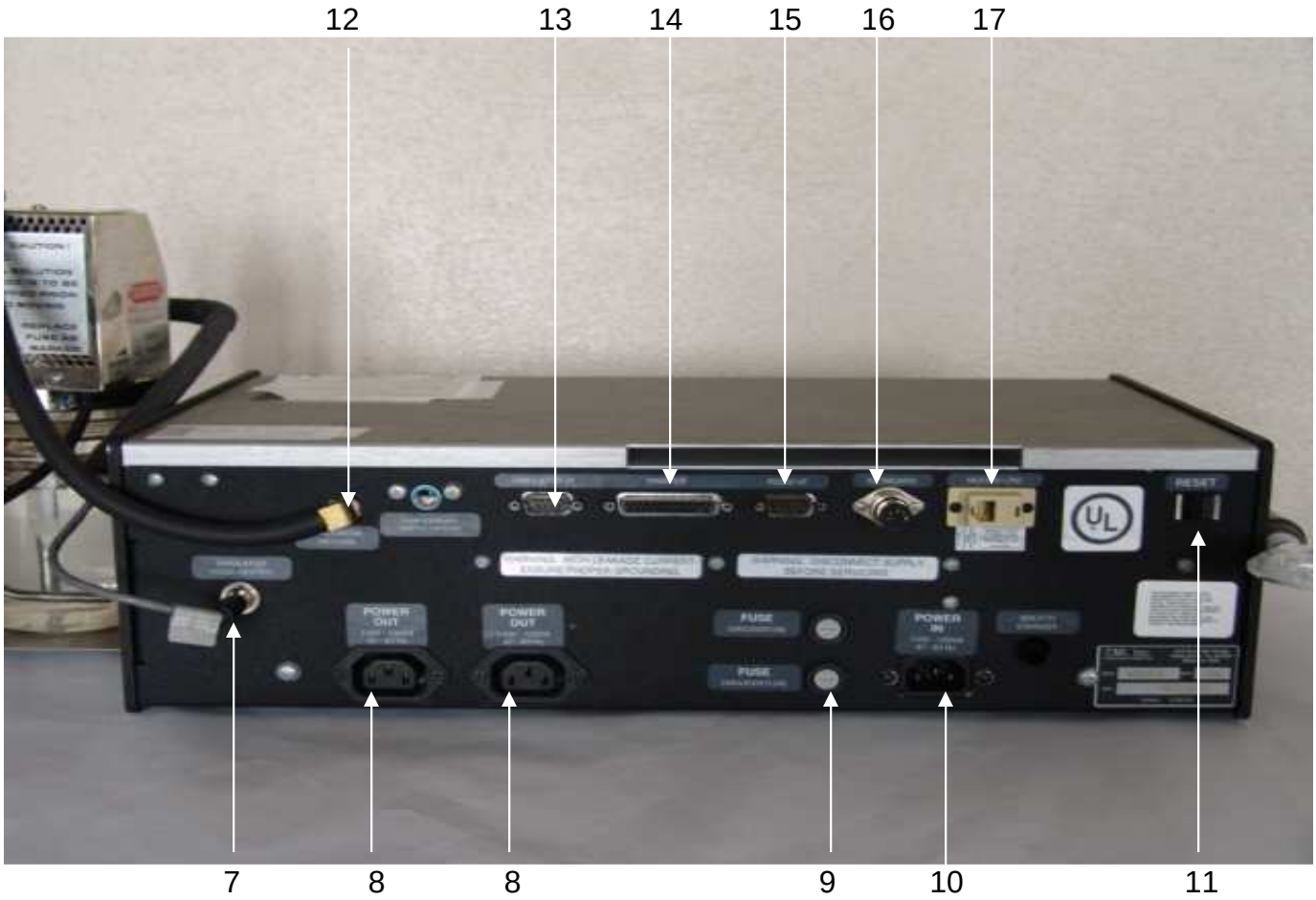
13. **Guth Simulator Interface Connector –** This 9-pin connector is used to connect the Guth Model 2100 simulator to the instrument.

14. **Printer Connector –** This 25-pin connector is used to connect the external printer to the instrument.

15. **RS232C Interface -** This 9-pin connector can be used to connect an external modem to the instrument for data communications.

16. **Keyboard Connector –** The keyboard for the instrument plugs into this 5-pin circular connector.

17. **RJ 11 Connector –** The telephone line plugs into this connection to connect the instrument's internal modem for data communications.



Connecting the Wet Bath Simulator to the Intoxilyzer 5000-EN

The simulator will be connected to the instrument with ¼ inch flexible tubing. The Intoxilyzer 5000-EN instruments have a recirculation system that allows the alcohol vapors from the simulator to be recovered and recirculated through the system. This recirculation technique lengthens the life of the simulator solution.

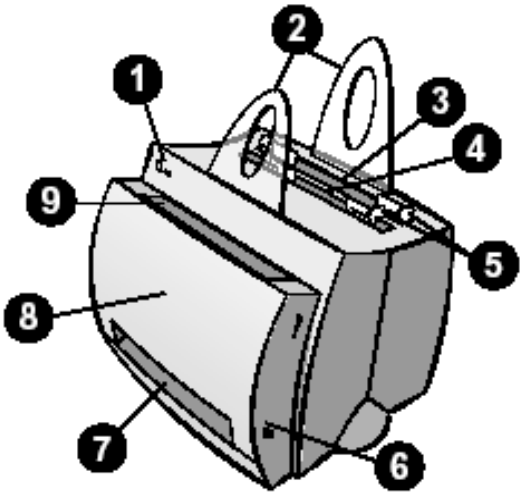
The VAPOR OUT port on the simulator connects to the port marked VAPOR FROM SIMULATOR on the right side of the instrument. The AIR IN port on the simulator connects to the port marked SIMULATOR RETURN on the instrument. Be careful to make these connections correctly.

To disconnect the electrical connection for the heated simulator hose, depress and hold down the small button on the top of the connector, then pull the whole connector out of the back of the Intoxilyzer. The HETL is always available to answer questions about the proper way to disconnect the simulator and its hoses from the Intoxilyzer should the need arise for an officer to do so.

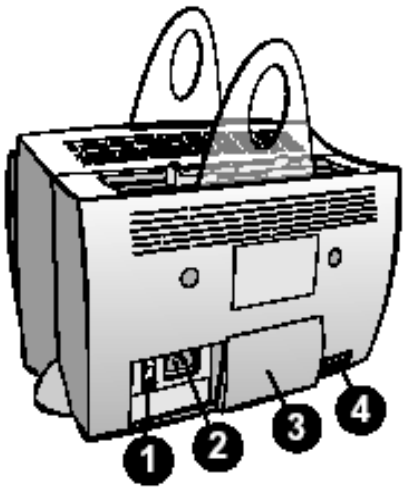
HP LaserJet 1100

Printer components

1. Printer control panel
2. Paper supports
3. Paper input tray
4. Single-sheet paper input tray
5. Paper guides
6. Paper-output lever
7. Straight-through output path
8. Printer door
9. Paper output bin



1. Power switch (220-240 volt only)
2. Power receptacle
3. Memory door
4. Parallel port



Note Printers that require 110-127 volts of power do not have a power switch. Unplug the printer to turn it off.

Printer control panel lights

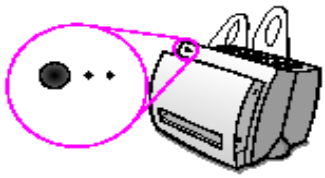
The control panel lights indicate the status of your printer.

Light status legend

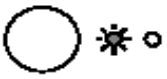
Symbol for “light off”

Symbol for “light on”

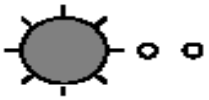
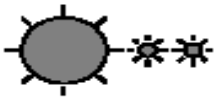
Symbol for “light blinking”



Printer control panel light messages

Light status	Condition of the printer	Description and required action
	**PowerSave mode (or the power is disconnected)** The printer uses Sleep mode to conserve power.	Pressing the **Go** button on the printer control panel, or printing, will awaken the printer from PowerSave mode. Check the power cord if the above actions do not generate a response (and the power switch on 220-240 volt printers).
	**Ready** The printer is ready to print.	No action is necessary; however, if you press and release the **Go** button on the printer control panel, a self-test page will print.
	**Processing** The printer is receiving or processing data.	Wait for the job to print.
	**Buffered data** The printer memory is retaining unprinted data.	Press and release the **Go** button on the printer control panel to print the remaining data.

Printer control panel light messages (continued)

Light status	Condition of the printer	Description and required action
	**Manual feed** The printer is in manual feed mode.	Check that you have loaded the correct paper, then press and release the **Go** button on the printer control panel to print. If you do not want to be in manual feed mode, change the setting from your printer properties.
	**Door open, no toner cartridge, or paper jam** The printer is in an error state.	Check the following: ● The printer door is closed. ● The toner cartridge is correctly installed in the printer. ● There are no paper jams.
	**Paper out** The printer is out of paper.	Load paper into the printer.
	**Memory out** The printer ran out of memory in the middle of a print job.	The page being printed may have been too complex for the memory capacity of the printer. Press and release the **Go** button to print.
	**Reset/Printer initialization** The printer memory is being reset and all previously sent print jobs are being purged. Or, a printer initialization is taking place.	No action is necessary. However, you can reset the printer if you press and hold the **Go** button for 5 seconds.
	**Fatal error** All lights are on.	● Reset the printer. ● Turn the printer off and then back on. ● Contact HP Support.

DETAILED TESTING PROCEDURE FOR THE 5000EN

SUBJECT BREATH TEST

1. Obtain the information needed for data entry.
2. Press the START TEST button. The Intoxilyzer should be ready to conduct a test in 3 minutes.
3. Subjects should be ask if they have anything in their mouth such as gum, cough drops, chewing tobacco, etc. Have them remove anything that is present, and advise them not to put anything into their mouth until the test is completed. Ask them to open their mouth so a brief visual exam can confirm that their mouth is empty. In the event the operator notes **loose** devices or objects they should direct the subject to remove such device or objects.
4. When the BTD operator must administer a chemical test to a person who has an oral piercing (i.e. mouth jewelry, tongue studs, cheek or lip piercings, etc.) the first and best choice is to have a blood test administered.

If a blood test cannot be reasonably obtained, then the BTD operator may administer an Intoxilyzer test to the person in the following manner:

a. At the Intoxilyzer site, direct the person to remove the piercing
b. Visually inspect the mouth for any blood or loose items

- ✓ If blood is noted, an Intoxilyzer test cannot be given
- ✓ If the subject does not remove the piercing, the operator must decide if an Intoxilyzer test is appropriate or if this is an act of non-cooperation.

(Note: If at any time during this process a blood technician becomes reasonably available it is recommended to still have the blood tech draw the blood, even if the subject completed the breath test.)

4. Observe subject for 15 minutes prior to the test and throughout the entire testing procedure to ensure they do not eat, smoke, drink, burp, belch, regurgitate, or place anything in their mouth.

During the 15 minute wait / observation period, and throughout the entire testing procedure, the subject must be within the officer's immediate area of control. The subject must be observed in a sufficient manner to determine that they do not" eat, smoke, drink, burp, belch, regurgitate or place anything in their mouth.
Although the officer is not required to stare at the subject during the entire 15 minute observation period, close visual and audible observation is required.

5. When the instrument has warmed up and is in the READY MODE, push the START TEST button. The instrument will now go through a menu of information requests. This information prints out on the subject's breath test report and is stored in the Intoxilyzer's memory. This data is subject to weekly downloading from each Intoxilyzer site by the State of Maine Health and Environmental Testing Lab. This information is used to generate monthly reports for the Bureau of Highway Safety and the Bureau of Motor Vehicles who use the data on OUI arrests. For this reason it is ***extremely important that the information be correctly spelled and in the proper format.*** **Failure to do so means that the Bureau of Highway Safety, which monitors Intoxilyzer usage at each site, will not credit your agency with the correct number or type of tests.**

   DATA ENTRY MENU – The following is a listing of the Intoxilyzer prompts in the order they appear on the instrument display:

   - SUB LAST NAME
   - SUB FIRST NAME
   - SUB MID NAME
   - SUB DOB
   - SUB SEX
   - ARST OFF NAME
   - **ARREST DEPT** (PROGRAMMED WITH SITE AGENCY) ???
   - OPER NAME LAST

- OPER NAME FIRST
- OPER NAME MID
- OPER CERT NO.
- START WAIT PERIOD
- CITY/TOWN
- STREET
- **COUNTY** (PROGRAMMED WITH SITE COUNTY)
- VIOL. DATE
- VIOL. TIME
- TST TR AD OUI OT (AD = JUV CDL COND)
- REVIEW DATA Y/N

Pressing the **F5 key** ends data entry prompting and exits back to the scrolling display. This may be useful if for some reason the operator decides not to continue with a subject test after the Start Test button has been pressed.

Please follow these guidelines for the indicated prompts that tend to be the cause of problems or inconsistencies:

- SUB LAST, FIRST, MID NAME: Enter subject's legal name from license. If the subject does not have middle initial, enter a dash (-) in place of the middle initial when answering the SUB MID NAME question.
- SUB SEX: Enter M or F.
- SUB DOB: MM/DD/YY
- ARST OFF NAME: Do not enter rank or title. Enter the name you commonly use, but do not use nicknames.
- ARREST DEPT: This is the arresting officer's department, not the operator's department. The Intoxilyzer is programmed by the HETL to respond to this prompt with the name of the agency housing the instrument. There are also defaults for County Sheriff's Department and Maine State Police. To **save time,**

typing, and **stop misspellings, *USE THE FOLLOWING SHORTCUTS*** that have been programmed into the Intoxilyzer:

- **Members of the agency at which the instrument is located**- When the words **"ARREST DEPT"** are displayed **do not type anything**, **just press the ENTER key.** The name of your agency will appear, correctly spelled and spaced, in response to the prompt. If for some reason the wrong agency name is displayed, backspace over it and enter the correctly spelled and formatted agency name from the HETL list included in this manual. Press the ENTER key again to continue to the next prompt.

- **Members of the County Sheriff's Department**- At any Intoxilyzer location in your county, when the words **"ARREST DEPT"** are displayed **type the letter "Z" and press the ENTER key.** The name of your agency will appear, correctly spelled and spaced, in response to the prompt. If for some reason the wrong agency name is displayed, backspace over it and enter the correctly spelled and formatted agency name from the HETL list included in this manual. Press the ENTER key again to continue to the next prompt.

- **Members of the Maine State Police -** At any Intoxilyzer location in the state, when the words **"ARREST DEPT"** are displayed **type the letter "X" and press the ENTER key.** The prompt "TROOP?" will appear. Type the letter of your troop and press the ENTER key. The name of your agency will appear, correctly spelled and spaced, in response to the prompt. If for some reason the wrong agency name is displayed, backspace over it and enter the correctly spelled and formatted agency name from the HETL list included in this manual. Press the ENTER key again to continue to the next prompt.

- **Members of an agency outside of which the instrument is located -** When the words **"ARREST DEPT"** are displayed **type in the *HETL acceptable name or abbreviation*** for your agency. The list of acceptable agency entries is included in this manual.

START WAIT PERIOD: The time the 15-minute wait / observation period began is entered here. The message, **"WARNING 15 MINUTE WAIT PERIOD HAS NOT ELAPSED"** will appear on the display before the REVIEW prompt at the end of data entry if the START WAIT time entered was less than 15 minutes from the instrument's current internal time. **If** an operator gets the "**15 minute wait period has not elapsed**" warning and does not correct the start wait time through reviewing the data at that point in time, the Intoxilyzer then starts a **"time remaining**" countdown timer until 15 minutes from the entered start wait period has elapsed by its internal clock. The instrument will not proceed with the subject test sequence until the elapsed time is up. This gives the operator, who suspects a typographical error in the entered Start Wait time, a one time opportunity to make a correction so that their observation period does not turn out to be inordinately long.

- CITY/TOWN: The location of the arrest is entered here, not the location of the Intoxilyzer site.
- STREET: The location of the arrest is entered here, not the location of the Intoxilyzer site.
- COUNTY: The Intoxilyzer is programmed by the HETL to respond to this prompt with the name of the county in which the instrument is located. When the word **"COUNTY"** is displayed **do not type anything**, **just press the ENTER key.** The name of the county the Intoxilyzer is located in will appear, correctly spelled, in response to the prompt. If for some reason the wrong county name is displayed, backspace over it and enter the correctly spelled and formatted county name from the HETL list is included in the rear of this manual. Press the ENTER key again to continue to the next prompt.
- VIOL DATE: mm/dd/yy

- ❖ TST = TR AD OUI OT:
  - o TR = training, and should be used for all practice, demonstration, diagnostic, and training tests. One copy of the report will print.
  - o AD = administrative only violations, and has its own **submenu**:
    - ▪ JUV = for under 21, zero tolerance violations.
    - ▪ CDL = for Commercial Vehicle Drivers License violations.
    - ▪ COND = for Conditional License violations.
  - o OUI = **Title 29A criminal OUI only**, not for OUI involving watercraft, ATV, snowmobile, etc.
  - o OT = other, and should be used for all watercraft, ATV, snowmobile, corrections, work release, probation, DHS ordered, court ordered, etc. testing.

When data entry has been completed, the instrument automatically begins the testing sequence of Air Blank, Internal Standards Calibration Check, Air Blank, Simulator Calibration Check, Air Blank, Subject Test 1, Air Blank with 2 minute wait period, Subject Test 2, Air Blank. The instrument will automatically ask for up to 4 subject samples if error messages nullify one or more of the results.

- ✓ Once the Intoxilyzer prompts for the subject to blow into the mouthpiece, **and the 15-minute wait / observation period has been completed**, place a new mouthpiece on the end of the breath tube and have them blow into the mouthpiece. **The instrument allows up to 3 minutes to receive an acceptable sample**, before it labels it as INSUFFICIENT and continues on with the testing sequence. Replace the mouthpiece with a new one if they are having trouble blowing through it.
- ✓ Advise the subjects to blow until the tone stops or until you tell them to stop blowing. Coach them through the test until the reading on the display has leveled off and the 0 has appeared in front of the decimal point. **Continue coaching until the displayed result is unchanging**. If subjects stop blowing before the instrument has accepted the sample as complete, **they may take a second breath**

and continue blowing. The result on the display will drop with the reintroduction of upper respiratory air before the influx of alveolar air causes it to rise and level off.

- ✓ After each breath sample is complete, remove the mouthpiece and discard prior to the beginning of a new air blank.
- ✓ After the ensuing Air Blank and 2 minute wait period, place a new mouthpiece on the breath tube and obtain a second sample as requested by the Intoxilyzer. The testing procedure may be complete at this point. However, the Intoxilyzer will continue to request **up to 4 samples until it obtains 2 acceptable results that are within 0.020 of each other** before ending the test sequence. A new mouthpiece is used for each additional sample. The **final reported BrAC is the average of the 2 lowest acceptable results, with the third decimal place dropped.**
- ✓ When the testing procedure is complete, the instrument will **automatically print 5 copies** of the subject test report on the external printer. These are labeled at the bottom of each sheet for Prosecutor, Secretary of State, Arresting Officer, Intoxilyzer Site, and Subject**. Notarize the copies for the District Attorney and Secretary of State** (others may be done if you wish).
- ✓ If the external printer runs out of paper while printing the subject test report, just place more paper in the rearmost paper slot (on the HP LaserJet 1100) and printing will automatically continue.
- ✓ **To reprint the last test** of any type done on the instrument, **just press the F1 key** and it will automatically reprint it. **CAUTION:** This must be done before the Intoxilyzer enters its sleep mode after 60 minutes of not being used or the test will no longer be available for reprinting.
- ✓ If the PRINTER OFFLINE message appears on the instrument display at any time, check to be sure the power is on to the printer, and that the printer cable is securely connected at both ends.
- ✓ If the OUT OF PAPER message appears on the instrument display at any time, just place more paper in the rearmost paper slot of the printer.

INTOXILYZER 5000EN SPECIFICATIONS

FUNCTIONAL –

1. Audible tones signal the completion of an operation, the presence of a malfunction, an incorrect operational procedure, or an unfulfilled test requirement.
2. An external printer provides a multi-copy printed record of test results, including time, date, subject data, and instrument model and serial number.
3. A 16 character digital display that relates which operations the instrument is performing, alerts the operator to required actions, and gives the alcohol test concentration in weight per volume.
4. The instrument is originally factory-calibrated by the manufacturer.
5. Breath Sampling: The instrument automatically senses alveolar air using slope detection in conjunction with a minimum volume, minimum flow rate, and minimum time requirement. The flow sensor allows for breath volume to be measured and printed for each breath sample.
6. The instrument is equipped to recirculate simulator vapor during the calibration check mode to extend the life of the simulator solution
7. Standby mode reduces dust accumulation in the instrument and increases component life by shutting down non-vital functions during inactive periods.
8. An internal modem allows the instrument to communicate with a remote computer.
9. 5 IR filters are used to measure infrared absorption at specific wavelengths yielding reference, alcohol, and interferent detection.

PERFORMANCE –

10. Instrument **range = 0.00 – 0.45** gms/ 210 L BrAC
11. Instrument **accuracy = ± 0.010** gms/ 210 L BrAC per HETL
12. Instrument **precision = ± 0.010** gms/ 210 L BrAC per HETL

TONES –

13. A beep sounds after the completion of each operation (mode).
14. A continuous tone sounds while a subject blows into the mouthpiece.
15. A high-low tone sounds intermittently for 5 seconds in the event of a malfunction, incorrect operational procedure, or unfulfilled test requirement.

Intoxilyzer 5000EN Sample Acceptance Requirements

Blow at sufficient rate for tone - .017 L/sec

Blow long enough - at least 4-5 seconds

Reading must reach a stable plateau

Minimum volume of breath - 1.1 Liters

Leading zero appears (**0**.000) when all conditions have been

DISPLAYED MESSAGES AND COMMANDS

DIAGNOSTICS –

- **"PROM CHECK ####"** – The instrument checks to make sure that the program (breath test sequence, calibration check procedures, etc.) located in the instrument EPROM is valid.
- **"RAM CHECK #"** – The instrument is checking each byte of RAM (memory) for possible failure. This is the data area where calculations and test data is stored.
- **"TEMP CHECK"** – The instrument is checking the temperature of the sample chamber. The sample chamber, as well as the rest of the breath path, is heated to prevent condensation.
- **"PROCESSOR"** – The instrument will show PROCESSOR until there is a response from the slave processor controlling the optical bench of the Intoxilyzer.
- **"VER ##_#### ####"** – The instrument is checking the slave processor to make sure that all the functions it monitors are within specifications.

- **"PRINTER CHECK"** – The Intoxilyzer checks for communication with the printer.
- **"RTC CHECK"** – The instrument checks the Real Time Clock circuit to make sure it is maintaining a valid date and time in the instrument.
- **"INTERNAL STD"** – The 3 internal standards of the instrument are being checked to see if they fall within specifications. Internal 1, 2 and 3 correspond to values of 0.100, 0.200, and 0.300 respectively. An acceptable range of ± 5% is programmed into the Intoxilyzer. The results for the individual internal standards are not displayed however.
- **"DIAGNOSTIC OK"** – The internal diagnostic testing of the instrument is complete. All functions have passed the diagnostic checks. When the instrument successfully completes diagnostic testing and is ready for operation, a message indicating CMI model number, time, date, and "PUSH BUTTON" continually scrolls across the screen. The Intoxilyzer 5000EN is now in what is called the IDLE MODE and is ready to begin a test.
- subject test. The acceptable range of + 0.010 of the target value of the simulator solution is set in the instrument software. The subject test procedure will halt if this check fails.
- **"PLEASE BLOW/R INTO MOUTHPIECE UNTIL TONE STOPS" –** Beginning when this command appears on the display, the subject has 3 minutes to deliver an adequate breath sample. At this point, carefully place a new mouthpiece onto the instrument breath tube. Instruct the subject to take a deep breath and exhale into the mouthpiece of the instrument. The subject will hear a tone when they are blowing into the instrument properly, and should continue blowing until the tone stops. The instrument checks for minimum flow rate, for sample volume, and for level slope of the sample. To meet this criteria the subject must continue to blow for a minimum of 4 seconds.
- **"PLEASE BLOW/R" –** This message will appear alternating with the one above. If the subject refuses the test, type "R" and press the ENTER key at this time. The display will show REFUSED and it will also be printed on the report.

- **"PLEASE BLOW" –** If a subject begins to give a breath sample and stops before the sample criteria are completed, the instrument will display this prompt indicating that the subject should begin blowing again.
- **"SUBJECT. ###" –** The value of the subject's sample will be displayed as the subject blows into the instrument. The result will rise, fall, or stay constant as the instrument continuously analyzes the sample. When a 0 appears to the left of the decimal point, the test has met the volume and slope criteria for an acceptable test. Allow the subject to continue to give a sample. When the subject has exhaled completely and the test criteria are met, the tone will stop and the display will go momentarily blank. The tone will then sound shortly, and the final breath sample result will be displayed.
- **"INSUFFICIENT SAMPLE" –** In the event that the subject fails to provide an adequate breath sample within 3 minutes, this message will appear accompanied by the high-low tone signal. This message will be printed on the card accompanied by an * alongside the subject test.
- **"TEST COMPLETE" –** The testing sequence is complete. The instrument will now print he report and return to the IDLE MODE.

CALIBRATION CHECK -

- **"SOLUTION VALUE?" –** The correct value (currently 0.090) is the default value already programmed into the Intoxilyzer, and will be accepted by pressing Enter. If the default value is for some reason no longer the correct one, then the operator must enter the value of the simulator solution to be used for the calibration check. It must be entered in the following format to be accepted by the instrument: **0. ### (0.090)**
- **"LOW REF VALUE" –** This sets the low end of the acceptable range for the simulator test. Just press the ENTER key to accept the pre-programmed setting. It is set by default to 0.010.
- **"HIGH REF VALUE" –** This sets the high end of the acceptable range for the simulator test. Just press the ENTER key to accept the pre-programmed setting. It is set by default to 0.010.

- **"PRINT HOW MANY" –** The operator must enter the number of copies of the calibration check to be printed.

EXCEPTIONS –

- **"PROM ERROR" –** The processor detected an error in the EPROM of the instrument. Press the START TEST button to see if the error repeats itself.
- **"RAM ERROR" –** Part of the instrument's random access memory has indicated an error. Press the START TEST button to see if the error repeats itself.
- **"TEMP ERROR" –** The sample chamber in the instrument is not warm enough to perform a test. Press the START TEST button to see if the error repeats itself.
- **"PROCESSOR ##" –** A processor error has occurred. Press the START TEST button to see if the error repeats itself.
- **"PRINTER ERROR" or "PRINTER OFFLINE" –** The instrument cannot communicate with the printer. Check that the printer is turned on and the printer cable is secure at each end.
- **"CLOCK ERROR" –** An invalid date or time has been detected in the battery backed up clock. Press the START TEST button to see if the error repeats itself.
- **"STABILITY FAIL" –** The master processor was unable to obtain a stable reference signal from the slave processor. The instrument cancels the test and prints UNABLE TO OBTAIN STABLE REFERENCE, INVALID TEST on the report. Press the RESET SWITCH to see if the error repeats itself.
- **"INVALID TEST" –** The START TEST button was pushed at the wrong time or the pump inadequately purged the sample chamber. The instrument cancels the test and prints INVALID TEST on the report.

  "INVALID SAMPLE" – The instrument detected an invalid sample. The Intoxilyzer completes the test sequence and prints INVALID SAMPLE .XXX in the place of SUBJECT TEST. ###. **This test was originally designed to detect the presence of residual mouth alcohol, but any breath sample that meets the profile for an invalid sample is considered an invalid sample by the instrument and may not necessarily result from residual mouth alcohol. An INVALID SAMPLE can also be caused by puffing into the instrument, or by moving or manipulating the**

mouthpiece during a test. The Intoxilyzer is designed to flag breath samples Affected by such actions.

- **If residual mouth alcohol is suspected, observe the suspect for another 15-minute wait period before beginning a new breath test.**

  Note: It is the policy of the Maine Criminal Justice Academy that a breath sample that indicates an "Invalid Sample XXX" does not absolutely void the entire test result if the Intoxilyzer continues the testing sequence and prints a final BrAC result.

  There are situations where one of the breath samples in a testing sequence indicates an "Invalid Sample XXX" and the Intoxilyzer finds 2 or more samples within that sequence that meet the standard and print a final test result. . These flagged samples may be caused by puffing into the instrument, or by moving or manipulating the mouthpiece during a test. The Intoxilyzer is designed to flag breath samples affected by such actions.

  If the certified BTD Operator suspects residual mouth alcohol, the test must be terminated and a new observation period and test must be conducted. If the certified BTD Operator suspects the suspect of puffing into the instrument, or moving or manipulating the mouthpiece during a test, the officer should articulate these observations in their report and consider the following:

  4. **The certified BTD Operator may warn the suspect that these actions are acts of non-cooperation and will result in a refusal if continued. The officer may then continue testing the suspect if the Intoxilyzer allows them to continue.**
  5. **The certified BTD Operator may warn the suspect about acts of non-cooperation listed above, start a new observation period and administer a new test.**
  6. **The certified BTD Operator may end the test and mark the test as a refusal due to non-cooperation.**

Officers should be aware that their agencies and the prosecutorial districts throughout the State have various policies on the "Invalid Sample XXX" issue relating to breath testing. Some District Attorneys require a new wait period and test be started with all "Invalid Sample XXX" warnings regardless of the cause.

- **"INHIBITED - RFI" –** Radio frequency interference is present. The instrument cancels the test and prints INHIBITED RFI, INVALID TEST on the report.[14]
- **"INSUFFICIENT SAMPLE" –** The subject did not provide an adequate breath sample within 3 minutes. The instrument displays INSUFFICIENT, completes the test sequence, and prints an * next to the sample along with INSUFFICIENT SAMPLE – VALUE PRINTED WAS HIGHEST OBTAINED on the report.
- **"INTERFERENT" or "INTERF DETECTED, SUBTRACTED" –** The subject's breath sample or a simulator vapor contains a substance (such as acetone) that absorbs infrared light in the same wavelength range as ethanol. These substances are categorized as interferents for the purposes of breath alcohol analysis. The 5000EN can detect interferents by analyzing the channel responses of each filter on the filter wheel. When it detects a measurable quantity of an interferent, it will display INTERF DETECTED, sound a high-low alarm signal, and print INTERFERENT SUBTRACTED beneath the test result on the report. It may alternatively abort the testing procedure and print INTERF DETECTED**,** INVALID TEST.
- **"CH # #### ####" –** The instrument is displaying the output of A/D converter. This happens in conjunction with diagnostic errors.
- **"AMBIENT FAIL" –** The instrument detected a substance in the room air. Strong odors from painting or cleaning products can cause this. The instrument displays AMBIENT FAIL, cancels the test, and prints INVALID TEST, CHECK AMBIENT CONDITIONS on the report.
- **"RANGE EXCEEDED" –** The test results exceed the instrument's range. The instrument cancels the test and prints INVALID TEST, INSTRUMENT RANGE EXCEEDED.
- **"INTERNAL STD FAIL" –** The result for one of the internal standards is outside of the allowable ± 5% range around its target value. The Intoxilyzer aborts the test sequence and prints INVALID TEST, INTERNAL STD FAIL on the report.

[14] The Intoxilyzer is programmed to detect RFI and stop the test if detected. Radios and/or cell phones will not impact test results, but due to the sensitivity of the instrument, could cause it to cancel the test and print "Inhibited RFI" on the report. A common misconception or defense tactic which is not true is that the use of a cell phone or radio near the Intoxilyzer during the test will somehow increase or alter the test result.

SUBJECT TEST –

- **"AIR BLANK" –** The instrument is purging the sample cell, breath pathway, and taking a reference value of the ambient air. An air blank should always have a final result of 0.000, showing no alcohol in the sample chamber.
- **"INTERNAL #" –** The instrument checks and displays the internal standards. Internal 1, 2 and 3 correspond to values of 0.100, 0.200, and 0.300 respectively. The acceptable range of $\pm$ 5% is programmed into the Intoxilyzer by the manufacturer. This is a type of calibration check done at the time of each subject test.
- **"CAL CHECK" –** A single test done with the simulator solution at the time of the subject test. This is another type of calibration check.

ACCEPTABLE ARREST DEPARTMENTS

(Revised 11/28/2012)

Acceptable Arrest Departments

ACADIA NAT PARK	FT FAIRFIELD PD	N BERWICK PD	WATERVILLE PD
ANDROSCOGGIN SO	GARDINER PD	NEWPORT PD	WELLS PD
AROOSTOOK SO	GORHAM PD	NORWAY PD	WESTBROOK PD
ASHLAND PD	GOULDSBORO PD	O O BEACH PD	WILTON PD
AUBURN PD	GREENVILLE PD	OAKLAND PD	WINDHAM PD
AUGUSTA PD	HALLOWELL PD	OGUNQUIT PD	WINSLOW PD
BAILEYVILLE PD	HAMPDEN PD	OLD TOWN PD	WINTER HBR PD
BANGOR PD	HANCOCK SO	ORONO PD	WINTHROP PD
BAR HARBOR PD	HARBOR MASTER	OXFORD PD	WISCASSET PD
BATH PD	HOLDEN PD	OXFORD SO	YARMOUTH PD
BELFAST PD	HOULTON PD	PARIS PD	YORK PD
BERWICK PD	INDIAN TWP PD	PENOBSCOTNAT PD	YORK SO
BIDDEFORD PD	ISLESBORO PD	PENOBSCOT SO	
BOOTHBAY H PD	JAY PD	PHIPPSBURG PD	Acceptable County
BREWER PD	KENNEBEC SO	PISCATAQUIS SO	ANDROSCOGGIN
BRIDGTON PD	KENNEBUNK PD	PITTSFIELD PD	AROOSTOOK
BROWNVILLE PD	KENNEBUNKPO PD	PLEASANT PT PD	CUMBERLAND
BRUNSWICK PD	KITTERY PD	PORTLAND PD	FRANKLIN
BUCKSPORT PD	KNOX SO	PRESQUE ISLE PD	HANCOCK
BUXTON PD	LEWISTON PD	RANGELEY PD	KENNEBEC
CALAIS PD	LIMESTONE PD	RICHMOND PD	KNOX
CAMDEN PD	LINCOLN PD	ROCKLAND PD	LINCOLN
CAPE ELIZ PD	LINCOLN SO	ROCKPORT PD	OXFORD
CARIBOU PD	LINCOLNVILLE PD	RUMFORD PD	PENOBSCOT
CARRABASSETT PD	LISBON PD	S BERWICK PD	PISCATAQUIS
CLINTON PD	LIVERMORE F PD	S PARIS PD	SAGADAHOC
CUMBERLAND PD	MACHIAS PD	S PORTLAND PD	SOMERSET
CUMBERLAND SO	MADAWASKA PD	SABATTUS PD	WALDO
D FOXCROFT PD	MADISON PD	SACO PD	WASHINGTON
DAMARISCOTTA PD	MARINE PATROL	SAGADAHOC SO	YORK
DEXTER PD	MDEA	SANFORD PD	
DIXFIELD PD	MECHANIC F PD	SCARBOROUGH PD	
DOC	MEXICO PD	SEARSPORT PD	
DOD POLICE	MILBRIDGE PD	SKOWHEGAN PD	
EAST MILL PD	MILLINOCKET PD	SOMERSET SO	
EASTPORT PD	MILO PD	STOCKTON SPR PD	
EDDINGTON PD	MONMOUTH PD	SW HARBOR PD	
ELIOT PD	MOUNT DESERT PD	SWANS ISLAND PD	
ELLSWORTH PD	MSP	THOMASTON PD	
F-W	MSP A	TOPSHAM PD	
FAIRFIELD PD	MSP B	UMO PD	
FALMOUTH PD	MSP C	USM PD	
FARMINGDALE PD	MSP D	VAN BUREN PD	
FARMINGTON PD	MSP E	VEAZIE PD	
FORT KENT PD	MSP F	WALDO SO	
FRANKLIN SO	MSP G	WALDOBORO PD	
FREEPORT PD	MSP J	WASHBURN PD	
FRYEBURG PD	MSP K	WASHINGTON SO	

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