



MISSOURI BREATH ALCOHOL
PROGRAM

BREATH ALCOHOL OPERATOR MANUAL



Missouri Department of Health and Senior Services

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

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Note: Each section is individually numbered.



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BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 1

ETHANOL: CHEMISTRY, PHYSIOLOGY, **TOXICOLOGY, AND TESTING**

ETHANOL

Ethanol is classified as an *alcohol*. Alcohol is the generic name for any chemical compound with a hydroxyl (-OH) functional group bound to a carbon atom of an alkyl group. There are many different types of alcohols and each has a unique molecular structure with specific chemical properties associated with that structure. Three of the most common simple alcohols are methanol (methyl alcohol), ethanol (ethyl alcohol), and isopropanol (isopropyl alcohol).

Ethanol is the type of alcohol in alcoholic beverages. It is also referred to as ethyl alcohol, grain alcohol, spirits, or simply alcohol. Throughout this text, the terms *alcohol*, *ethyl alcohol*, and *ethanol* will be used interchangeably. Regardless of the term used, ethanol is a drug that affects human behavior and performance.



All alcohols are toxic. The reason ethyl alcohol is used in alcoholic beverages is that it is not as toxic as other alcohols. Consumption of even small amounts of methyl alcohol or isopropyl alcohol can have life threatening implications. This toxicity is due to the chemicals formed when methanol and isopropanol are chemically changed, or metabolized, by the body. The body changes ethyl alcohol into acetaldehyde and then immediately to acetic acid, which in turn is metabolized and eliminated as carbon dioxide and water. Acetaldehyde normally does not accumulate in the body since the metabolism rate of the acetaldehyde is 4-5 times greater than the metabolism of ethyl alcohol.

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At room temperature ethyl alcohol is a clear, colorless liquid that has a slight odor and is *miscible* with water. Miscible means the alcohol and water will mix in all proportions. Ethanol is used as a solvent, an antiseptic, or as an additive in certain fuels. Alcohol is found in some medications and mouthwashes. Regardless of the source - whiskey or cold medication - the effects of alcohol on the human body are the same.

Ethanol is perhaps the world's most studied drug and possibly the oldest known drug. It has been present in most civilizations throughout the history of mankind. Dried residues on 9000-year-old pottery found in northern China imply the use of alcoholic beverages even among Neolithic peoples.

ALCOHOLIC BEVERAGES

Alcohol can be produced naturally through the process of fermentation or synthetically through industrial means. The usual method of synthetic production is from byproducts of petroleum refineries. Alcohol synthetically produced is not sold for human consumption and is therefore not taxed by the federal government. Commonly, this product is denatured (poisoned) to discourage the consumption of this non-taxed alcohol.

Production of alcoholic beverages always begins with the process of *fermentation*. Fermentation is the procedure by which yeast consume sugar or starch, and in turn, excrete ethanol. Beer and wine are produced through this process. The maximum alcohol concentration produced by this method is about 12-15% because any higher alcohol concentration kills the yeast.



In order to manufacture a beverage with a higher alcohol content (e.g. rum, vodka, gin, and whiskey), the alcohol mixture produced from fermentation must be distilled. *Distillation* is the controlled vaporization and collection of a substance, in this case ethyl alcohol. This process concentrates the ethanol so that the final product has a concentration higher than the original fermented mixture.



For alcoholic beverages, ethyl alcohol and water account for the vast majority of the beverage. The remaining components in an alcoholic beverage are referred to, collectively, as congeners. Congeners are responsible for the various tastes, aromas, and colors associated with a particular alcoholic beverage. Some congeners come from the primary plant material used in the fermentation mixture, while others are due to the addition of other components during the fermentation process. For example, tequila is made from the agave plant; gin is made from grain and flavored with the juniper berry. Sometimes congeners are also introduced during the aging process, such as during contact of the liquid with wooden containers.

HOW ALCOHOL IS MEASURED

In the United States the ethanol concentration of distilled beverages is designated by the *proof* system. Proof is approximately twice the percentage of the alcohol content by volume. For example, Brand “Z” Whiskey is 101 proof, which means its alcohol content is 50.5% by volume. Conversely, a beverage whose alcohol content by volume is 40% would be 80 proof.

$$\text{Proof} = 2 \times \% \text{ Alcohol by Volume}$$

The alcohol content of beer and wine are usually reported in terms of percent volume of alcohol. Beer, ale, and malt liquor are not required to label their product with the alcohol content. Most beers have less than about 5% alcohol by volume. Wines typically have about 10-12% alcohol by volume.

The alcohol content varies with the drink. For purposes of this text, one "drink" equals one 12 ounce serving of regular beer, one and a half ounces of 80 proof distilled spirits, or 5-6 ounces of wine. Each of these drinks contain approximately the same amount of alcohol. If any one of these is consumed in the same period of time, it will have about the same effect upon the body.



FATE OF ALCOHOL IN THE BODY

Most of the substances consumed by humans can be classified either as a food, a drug, or a poison. Ethanol can be considered all three.

- ◆ It's a *food* because the body uses it to produce energy. The unit of energy is the calorie. One gram of alcohol will provide about 7 calories. These calories are known as empty calories because they cannot be stored as fat, nor do they provide anything further in the way of nutrition.
- ◆ It's a *drug* because of its *depressant* effect upon the central nervous system. Ethyl alcohol hinders the smooth, rapid transmission of nerve impulses which in turn affects a person's behavior and performance. Continued use of ethanol can lead to dependence on the drug.
- ◆ It's a *poison* because even small amounts damage and irritate tissue. Larger doses can cause coma and death. Prolonged heavy use can lead to many health problems.

ABSORPTION OF ALCOHOL

Ethanol can enter the human body in several different ways: injection, inhalation, and ingestion. Ethanol has not been observed to accumulate in the body as a result of absorption through the skin. Injection of ethanol directly into the body is an extremely dangerous procedure because it produces a localized concentration of ethanol that can

severely affect the heart and other vital organs (this phenomenon is referred to as the "bolus effect"). Another possible route for ethanol to enter the body is through inhalation of alcoholic vapors. When the alcoholic vapors come into contact with the lungs and mucous membranes lining the nasal passages and throat, then the ethanol can diffuse through these membranes into the blood. However, to reach significant levels of alcohol concentration requires exposure to a severely irritating environment for an extended period of time. It is, therefore, very unlikely that any individual would become intoxicated in this manner. The usual method for alcohol to enter the body is by ingestion of an alcoholic beverage. Ethanol is not digested, but absorbed unchanged.

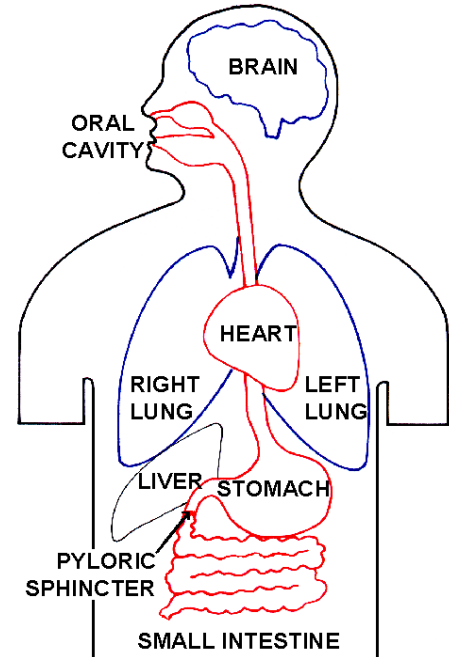
The absorption of ethyl alcohol begins immediately following the introduction of the alcoholic beverage into the digestive system. Ethanol is readily absorbed through all mucosal surfaces, including the oral cavity and gastrointestinal tract.

Immediately after a sip of an alcoholic beverage, the breath would indicate high alcohol content. If analyzed, this breath sample would not be an accurate reflection of the alcohol concentration in the person's body. This is sometimes referred to as *residual alcohol* or mouth alcohol.

Residual alcohol diminishes rapidly and is gone within a few minutes. Proper testing procedures combined with current evidential breath alcohol testing devices eliminate residual alcohol from the test result.

After passing through the mouth, the ethanol travels to the stomach. If alcohol is present in the stomach and some of it is regurgitated back into the mouth, a portion of that dose will be absorbed in the mouth. Regardless of how ethanol is introduced into the mouth, the presence of residual alcohol is gone in less than 15 minutes.

A portion of the ethyl alcohol can be absorbed into the body from the stomach. The length of time the ethanol remains in the stomach before being passed on to the remainder of the gastrointestinal tract can vary due to several factors. The most significant factor is the amount of food in the stomach. The pyloric sphincter controls the passage of material from the stomach to the small intestine. On a full stomach, the pyloric sphincter remains closed longer. Ethanol remains in the stomach for a longer period of time delaying its absorption. Slowing the alcohol absorption decreases the peak alcohol concentration, may prolong the time to reach the peak concentration, and reduces the impact of that alcohol on the person.

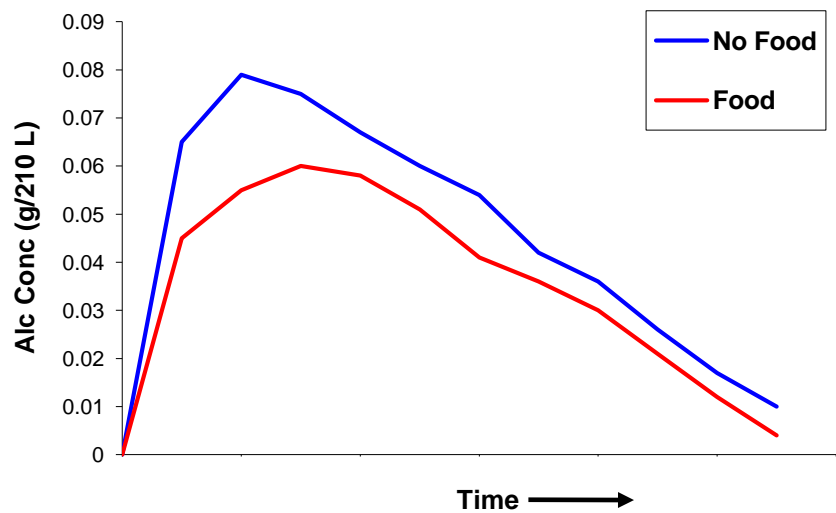


The type of food may affect the absorption rate, but the amount of food is the most significant factor. Even on a full stomach the peak alcohol level is usually reached within 30 to 40 minutes after the last drink.

From the stomach the ethyl alcohol enters the small intestine. Ethyl alcohol is rapidly absorbed into the body by the small intestine. The *small intestine* is where most of the alcohol is absorbed into the body.

Ethanol is rather unique in that it is not digested, or broken down into smaller parts, but rather it is absorbed unchanged through the process of simple diffusion.

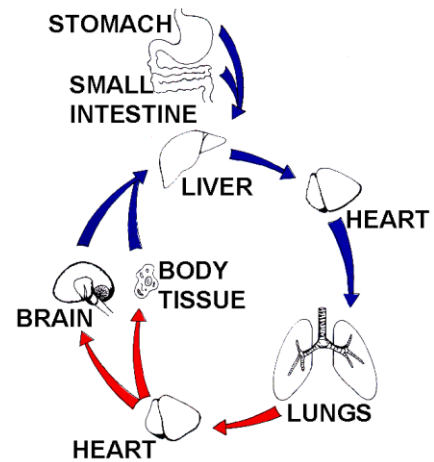
EFFECT OF FOOD ON ALCOHOL ABSORPTION



THE DISTRIBUTION PROCESS

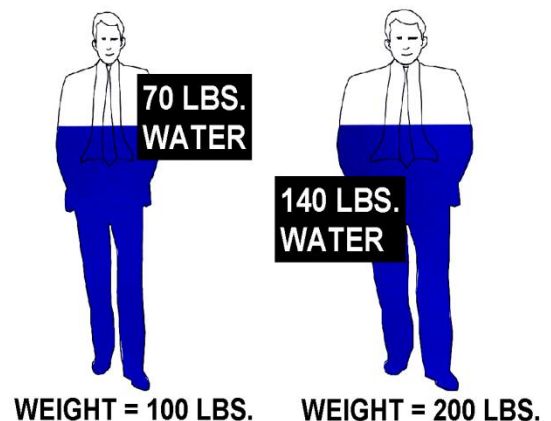
Once ethanol has been absorbed it is distributed throughout the body. The ethanol travels through the liver, then is distributed to the various body tissues. A portion of the ethyl alcohol quickly reaches the brain tissue.

The amount of ethanol in the organs and tissues depends on the water content of each tissue or organ. Since ethyl alcohol is miscible with water, it will rapidly diffuse from an area of high alcohol concentration to an area of low concentration.



BODY TYPE AND TOTAL BODY WATER

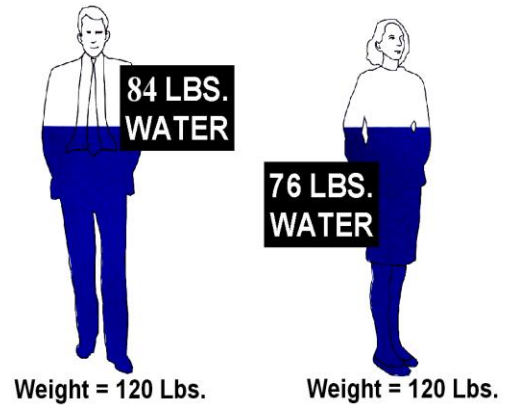
The total amount of water in the body can vary from one individual to another based upon the weight (mass) of the person. Assuming the same body type, a 200 pound man must consume more ethanol than a 100 pound man to reach the same alcohol concentration. This is because the 200 pound man has more body water to dilute the alcohol.



The amount of fat tissue also affects the total amount of body water. Since fat tissue has very little water it does not absorb ethyl alcohol. A 200 pound obese person will have less body water to dilute the alcohol than would a 200 pound lean person.

GENDER MAKES A DIFFERENCE

Total body water content also varies according to gender. On average, women have less body water than men do on a per pound basis due to body composition. The same ethanol intake in terms of body weight results in a higher alcohol concentration in women than in men. For example, a 120 pound man would have to consume more alcohol than a 120 pound woman to achieve the same concentration, because the man has more water in his body with which to dilute the ethyl alcohol.

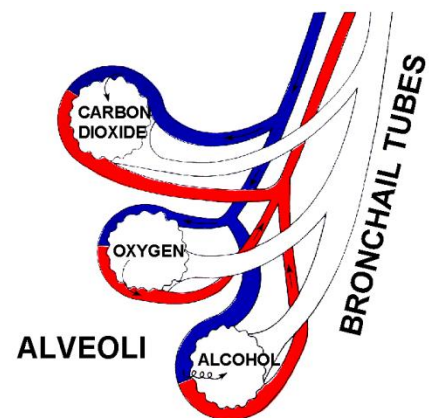


THE ELIMINATION PROCESS

Ethanol is removed from the body through metabolism and excretion. The majority of ethanol is metabolized (oxidized) by the *liver*. There is also evidence to indicate that a small amount of alcohol is eliminated in the gastrointestinal tract, particularly the stomach. During each pass through the liver, the enzyme Alcohol Dehydrogenase (ADH) oxidizes a portion of the alcohol. The process of oxidation in the liver accounts for the elimination of 90 to 95% of the alcohol consumed.

The process of excretion accounts for the elimination of 5 to 10 % of the alcohol consumed. A small percentage of ethanol consumed is excreted unchanged into the urine. The amount of ethanol in the urine is proportional, within certain limits, to the ethanol concentration in the blood. The urine is stored in the bladder prior to its elimination from the body. The bladder is very poorly supplied with blood and very little of the urine alcohol is reabsorbed back into the blood stream.

Since ethyl alcohol is miscible with water, a small portion of the ethanol is excreted unchanged in sweat. Alcohol dissolved in perspiration is transported through the skin and then evaporated into the surrounding air. Most important for the purposes of determining alcohol concentration, alcohol is also excreted through human breath. Excretion of ethanol in the breath is the basis of the breath alcohol test. The exchange of oxygen and carbon dioxide occurs in the small tissue sacs of the lungs called the *alveoli*. When alcohol is present in the body, a portion of that alcohol will be eliminated in the breath because the ethanol can readily pass through the thin



alveolar membrane and be exhaled in the breath. The concentration of the alcohol in the alveolar air is proportional to the amount of ethanol in the body.

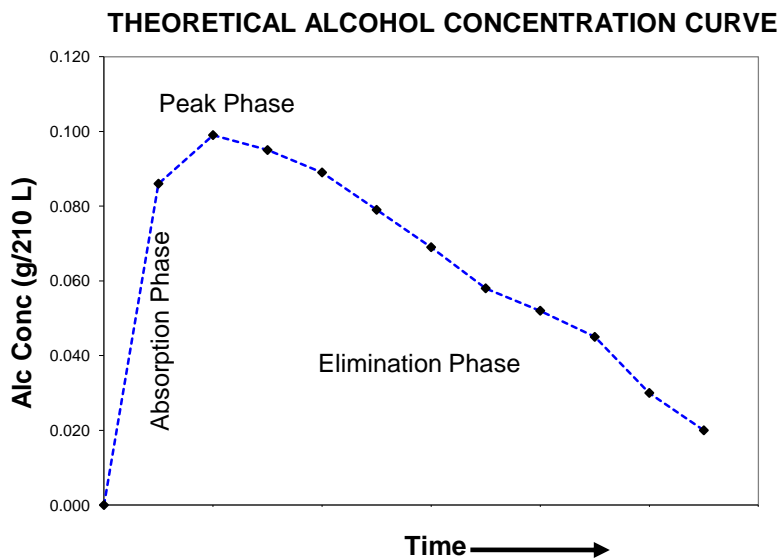
A pure alveolar sample is impossible to collect; therefore, an end-expiratory breath sample is collected and analyzed. The end-expiratory sample will contain a lower alcohol concentration than a pure alveolar sample. Consequently, an end-expiratory breath sample will almost always benefit the individual taking the breath alcohol test.

Regardless of the method, elimination is a physiological process and as such is not significantly affected by exercise or stimulants such as caffeine. Hot coffee, a cold shower, or vigorous exercise cannot alter the rate of elimination. Currently, the only proven method for sobering up is to allow sufficient time for the body to eliminate the alcohol.

An individual's rate of metabolism is fairly constant, but the *elimination rate* can vary from person to person. The range of reported elimination rates varies from about 0.010 – 0.040 g/210 L per hour, with the majority of drinking drivers tested in the range of 0.012 – 0.028 g/210 L/h. The higher rates usually occur in alcohol abusers or alcohol dependent persons.

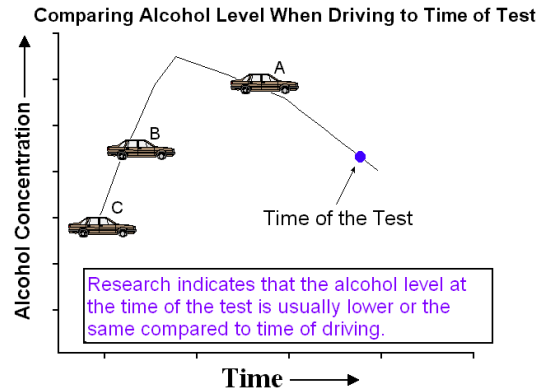
PUTTING IT ALL TOGETHER

Absorption, distribution, and elimination have all been discussed. Combining all these factors creates the *alcohol concentration curve*. Elimination begins immediately after the introduction of alcohol during the absorption phase. However, when the rate of absorption exceeds the rate of elimination, the amount of alcohol in the body will increase. After the drinking stops, at some point the amount of alcohol being absorbed will equal the amount being eliminated, which results in the peak alcohol concentration. During the elimination phase, the amount of alcohol absorbed is less than the amount eliminated so the alcohol concentration in the body will gradually decrease over time. The shape of the alcohol concentration curve will vary according to all the factors that affect absorption, distribution, and elimination of ethyl alcohol.



Depending on the various factors of absorption, distribution, and elimination of ethanol in the body, there are three possibilities when estimating the alcohol concentration at a time prior to the test.

The graph indicates that the alcohol concentration may be higher when driving (Car A) than at the time of the test. In this case the person was in the elimination phase between the two points indicated. The graph also shows the concentration may be the same at both driving and time of test (Car B). This time the amount of alcohol absorbed was equal to the amount eliminated. The last example (Car C) shows that the alcohol level when driving may be lower than at the time of the test. In this example, the person was in the absorption phase and the alcohol concentration was rising. Research indicates that the breath alcohol concentration is usually the same or higher at the time of driving compared to the time of the test.



INTOXICATION WITH ETHANOL

When the alcohol concentration reaches a certain level, the individual concerned is intoxicated. Intoxication refers to the reduction or loss of normal physical and mental faculties. Intoxication is based upon measurable changes in an individual's performance of a specific task, such as operating a motor vehicle. The term "intoxication" should be separated from the more common term "drunk." The term "drunk" is used as a descriptive word denoting a particular type of observed behavior.

A tremendous amount of research has been performed to identify the progressive levels of intoxication, induced by ethanol, with regards to impairment in the operation of a motor vehicle.

The single fundamental fact regarding alcohol consumption is that increasing alcohol concentration results in increasing impairment of normal physical and mental faculties. Judgment is the first area noticeably affected. Behavioral changes are sometimes observed and there is a loss of social inhibitions. Fine muscular coordination is affected and complex reaction time is lengthened. Complex reaction time is the time required for a person to perform two tasks almost simultaneously. At 0.08 percent alcohol concentration, current research has shown that all persons are impaired with regards to the operation of a motor vehicle. Increasing the alcohol concentration above 0.08 percent results in further impairment of normal physical and mental faculties. However, it is always important to remember that ***there is no safe level of alcohol with regard to driving!*** Both epidemiological and laboratory studies indicate even low ethanol concentrations may impair safe operation of a motor vehicle.

As the alcohol concentration continues to rise, it presents a threat to life. Persons with an alcohol concentration of 0.30 percent or greater should be carefully observed and consideration given to seeking medical assistance. This level of alcohol may cause respiratory depression. An individual with an alcohol concentration of 0.40 percent or greater may lapse into a coma. This level of alcohol could result in death, although persons receiving medical attention have survived these levels.

EFFECTS OF ETHANOL ON THE CENTRAL NERVOUS SYSTEM

The central nervous system (CNS) is the site where alcohol exerts its effects. The CNS is composed of the brain and the spinal cord and is responsible for transmitting nerve impulses to the various muscles and organs of the body. Ethanol acts as a *depressant* on the CNS, not as a stimulant.



Ethanol has such a wide range effect due to the large quantity consumed and the site of action. It is not the alcohol in the peripheral areas of the body which impairs a person's coordination, but the alcohol concentration in the CNS tissue. In the CNS, the alcohol acts to depress nerve transmission and to reduce coordination between various nerve centers.

Alcohol impairs driving ability. Research has demonstrated that impairment of the most important driving skills can occur at ethanol concentrations well below 0.08 g/210 liters. Operating a motor vehicle involves judgment, attention, psychomotor skills, vision, perception, tracking (steering), and information processing.

Judgment *The first effect of alcohol is the impairment of judgment.* Since the site of action for ethanol is the brain it follows that mental faculties are affected before physical faculties. Judgment is a general name given to various decision-making aspects of human behavior.

Alcohol affects the brain in reverse order of how the brain develops. So the higher levels for brain function such as judgment, logic and reason are affected first, and the lower involuntary functions, such as respiration and digestion, are affected last.

Alcohol depresses learned social and cultural inhibitions. Consumption of alcohol also results in an impairment of self-evaluation. Self-evaluation is the ability of an individual to judge his own behavior or performance. Alcohol has the ability to create a feeling of euphoria or a sense of well-being. Because of this artificial sense of well-being, combined with an increase in the pain threshold, an intoxicated individual may ignore minor or even serious injuries. Another aspect of judgment affected by alcohol is risk assessment. Intoxicated individuals will take greater risks than when sober.

Attention The ability to divide attention between two or more sources of information is a basic requirement of safe driving. Impairment of attention has been found at levels well below 0.08 g/210 L alcohol concentration.

Psychomotor Skills Psychomotor skills are motor actions (physical faculties) proceeding directly from mental activity. The degree of impairment demonstrated by the traditional roadside tests such as walking and balancing can depend on the drinking experience of the driver.



Vision Ethanol depresses the coordination between the muscles that control the eyes. This lack of muscle coordination leads to blurring and double vision. Intoxicated individuals tend to narrow their visual field. Ethanol decreases the field of peripheral vision so drivers fail to perceive important peripheral events. Impairment of vision has been found at levels well below 0.08 g/210 L alcohol concentration.

Perception The ability to interpret complex sensory information can be adversely affected by ethanol. Impairment of perception has been found at levels well below 0.08 g/210 L alcohol concentration.

Tracking Tracking, or steering, is a relatively difficult task. The driver must maintain the vehicle within the lane limits and in the correct direction while monitoring the driving environment for other important information. The ability to steer is very susceptible to ethanol impairment and impairment has been found at levels well below 0.08 g/210 L alcohol concentration.

Information Processing Ethanol slows the rate of information processing by the brain. This effect has been noted on many different kinds of tasks. If there are two or more stimuli and if several responses are possible, response times lengthen significantly. Alcohol impaired drivers require more time to read a street sign or to recognize and respond to a traffic signal. Impairment of information processing has been found at levels well below 0.08 g/210 L alcohol concentration.

TOLERANCE AND ETHANOL

The least understood phenomenon of alcohol consumption is tolerance. Tolerance is usually defined as the effect that results from the chronic use of a drug when larger doses become necessary to achieve the same desired effect. However, in discussing alcohol tolerance it is more convenient to reverse this definition and consider tolerance as the effect where the expected changes in behavior or impairment in performance of a specific task are not observed.

There are two general types of tolerance: natural tolerance and learned tolerance.

Natural Tolerance Natural tolerance consists of three areas: inborn tolerance, physical tolerance, and stress tolerance.

- Certain individuals demonstrate a natural inborn (genetic) tolerance to low alcohol concentrations. This type of tolerance is most prominent in very low alcohol concentrations.



- Another form of natural tolerance is physical tolerance. The effect of a given alcohol concentration will always be greater in persons who are ill as compared to the same persons when healthy. These individuals' normal physical and mental faculties are already affected due to their sickness, and this adds to the effects of the alcohol.
- Another form of natural tolerance is stress tolerance. In high stress or anxiety situations adrenaline is released in the human body to stimulate the body's response to the source of stress. In intoxicated individuals, this can result in those persons appearing less intoxicated than they really are. Stress tolerance is only a temporary effect lasting for a few minutes.

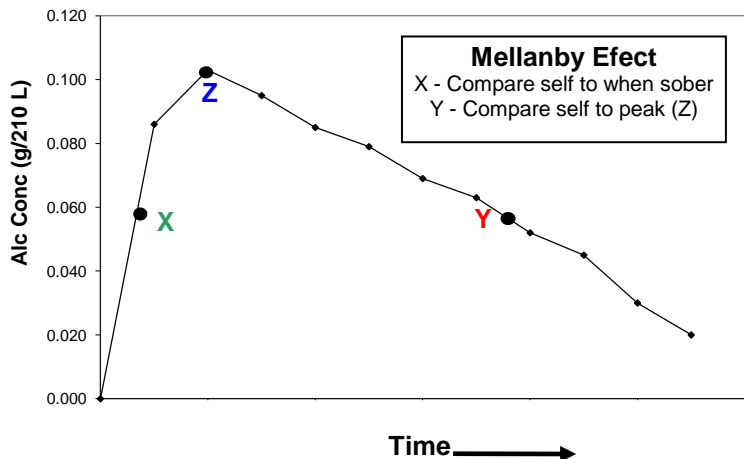
Learned Tolerance Learned tolerance consists of three areas: behavioral tolerance, acquired tolerance, and acute tolerance.

- Behavioral tolerance is a result of the influence of the social setting and the social customs associated with alcohol consumption in a particular situation. An individual will behave differently in different social settings even though the alcohol concentration in that person is the same on both occasions. Mood, or sense of well-being, also influences a person's behavior at a particular alcohol concentration. A person who is depressed and unhappy is usually more depressed and unhappy following the consumption of alcohol. This effect is usually best observed at low levels of alcohol concentration, because higher levels may alter the person's perception of reality.

- Another type of learned tolerance is acquired tolerance. Acquired tolerance results from the chronic use of alcohol. These individuals are indeed impaired in judgment, reaction, and coordination, but have learned through experience to disguise their outward appearance of intoxication. A novice drinker (one who has little or no experience with alcohol) will demonstrate greater outward effects than those expected at a given alcohol concentration. This is due to the absence of an acquired tolerance.

- The last type of learned tolerance is acute tolerance, or sometimes called the Mellanby Effect. Acute tolerance is the result of a person comparing his present condition with his past condition. In the absorption phase of the alcohol curve (position X), the individual compares his perceived state with when he was alcohol free. His perception has been altered so that the effects of the alcohol are overestimated. Later during the elimination phase (position Y) the same person compares

THEORETICAL ALCOHOL CONCENTRATION CURVE



his present perceived state with his peak alcohol concentration (position Z) and the effects of the alcohol are underestimated. In both instances the alcohol concentrations were equal and the person equally impaired. Since the individual perceives himself as less intoxicated during the elimination phase, this person is a greater risk when operating a motor vehicle. The person has lost the ability to accurately judge his performance.

Because of the various aspects of alcohol tolerance, judging an individual's intoxication can be very difficult when based solely on visual observation. Social prestige and interpersonal relationship may influence a person's judgment of another's intoxication.

Regardless of how a person appears, it is the impairment of the individual's normal physical and mental faculties that is important. An individual may consciously or unconsciously attempt to disguise his intoxication, but cannot alter the fact that his judgment, reactions, and coordination are impaired.

ALCOHOL AND OTHER DRUGS

When ethyl alcohol is consumed in combination with other chemical agents, illicit, prescribed, or over-the-counter, the symptoms of alcohol intoxication may be altered. This may explain the situation where an individual appears very intoxicated, but the alcohol test results are low.

Combining ethanol with other drugs can produce two types of effects: additive or synergistic. When one dose of a drug is combined with one dose of ethanol and the effect is equal to no more than the sum of the effects of the two drugs, the effect is said to be additive. A synergistic situation occurs when a drug is combined with ethanol and the end result is greater than the sum of the individual effects.

There is no known drug that can lessen the effects of ethanol on a person's driving performance.

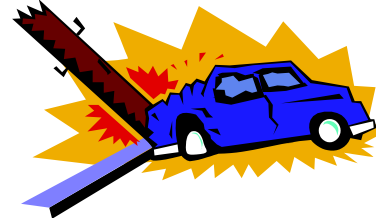
IMPAIRMENT WITHOUT ETHANOL

Ethyl alcohol is not the only agent that can produce the effects already described. Certain illnesses, diseases, or other drugs are able to produce symptoms similar to ethanol intoxication. Untreated diabetics or trauma victims may exhibit symptoms similar to ethanol intoxication.

Acetone, like ethanol, can cause impairment and may be mistaken for alcohol intoxication. Acetone can be present in an individual due to a prolonged fast, a low carbohydrate diet, or untreated diabetes. Modern evidential breath alcohol testing instruments can distinguish between acetone and ethyl alcohol, eliminating any affect from acetone on the alcohol result.

ETHANOL AND DRIVING PERFORMANCE

The relationship between alcohol and driving has been studied and analyzed for decades. From both epidemiological studies (surveys of accident data) and controlled studies of alcohol and driving skills, it has been clearly shown that ethyl alcohol impairs a person's driving performance.



History of Alcohol and Motor Vehicle Crashes

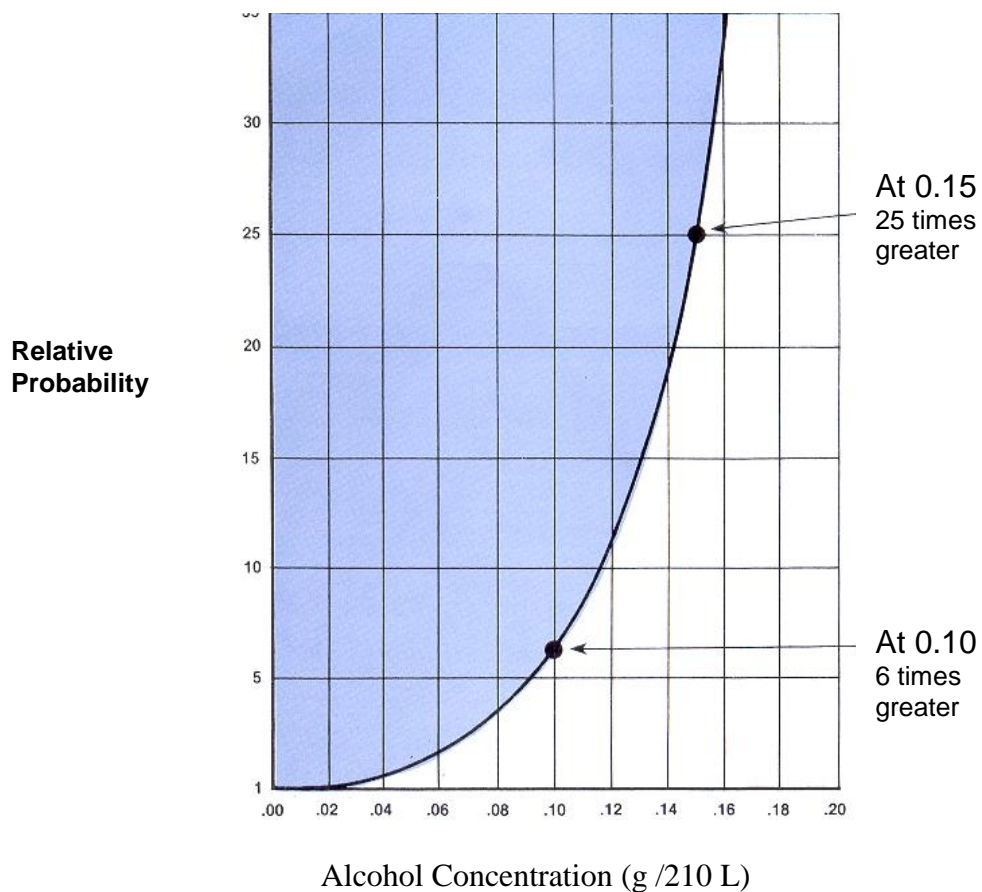
Ethyl alcohol has been suspect as a factor in highway motor vehicle crashes since the appearance of the automobile. Studies as early as 1904 have shown that moderate and heavy drinkers are incapable of safely operating a motor vehicle.

Subsequent studies conducted in the United States and other nations since the 1930's indicate a strong, direct link between increasing blood alcohol concentration (BAC) and increasing risk of motor vehicle collision.

In 1960, the National Safety Council recommended that an alcohol concentration above 0.10 be considered *prima facie* evidence of intoxication. As research continued, the committee recommended in 1971 an even lower presumptive level of 0.08. In 1986, based on the large field of work showing conclusive impairment in virtually all drinkers at levels as low as 0.05, the American Medical Association's Council on Scientific Affairs recommended adoption of 0.05 as *per se* evidence of alcohol-impaired driving. While numerous other countries in Europe and elsewhere have adopted this standard or an even more stringent one, no state within the United States has yet adopted this standard.

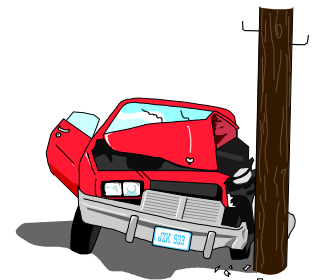
Research clearly shows that a problem exists, that this problem is societal, and that a definite cause and effect relationship exists between alcohol in the body and the probability of a vehicle crash. Some of the facts that have emerged are:

- One out of every one hundred drivers has an alcohol concentration of 0.10 or more. On Saturday nights this statistic increases to one in ten.
- At alcohol concentrations as low as 0.02 g/210 L, alcohol affects driving ability and crash likelihood. The probability of causing a crash begins to increase significantly at 0.05 g/210 L and climbs rapidly after 0.08 g/210 L.
- For drivers with alcohol concentrations above 0.15 g/210 L on weekend nights, the likelihood of being killed in a single-vehicle crash is more than 380 times higher than it is for non-drinking drivers. The probability of a driver causing a vehicle crash increases from six times as great at an alcohol concentration of 0.10 g/210 L to twenty-five times as great with an alcohol concentration of 0.15 g/210 L.



RELATIVE PROBABILITY OF CAUSING A CRASH

- Approximately 40% of all motor vehicle crashes in which death occurs are attributed to alcohol being a causative factor.
- In the United States, alcohol related crashes result in approximately 17,000 deaths, one million injuries, and \$45 billion in costs to society every year.



CHEMICAL TESTS FOR INTOXICATION

With over 1.4 million arrests annually for driving under the influence, the analysis of alcohol in biological specimens is one of the most common forensic tests utilized in the United States. Many different biological specimens have been and are used for the analysis of alcohol.

Because alcohol is freely miscible with water, any bodily fluid with significant water content will also possess meaningful levels of alcohol during intoxication. While this even applies to bodily fluids such as cerebrospinal fluid or breast milk, blood is the preferred and universally accepted specimen of bodily fluid for blood alcohol determination, although saliva or urine can also be used for this purpose.

Since alcohol is excreted unchanged through the breath, analysis of this biological sample can also be employed to determine alcohol concentration, and has been found to be advantageous for many reasons. Chemical analysis of blood and other body fluids are invasive as well as complicated and expensive to perform. Breath tests for alcohol concentration can be performed easily by trained law enforcement officers. Breath alcohol tests are non-invasive and give immediate results. They require only minimal subject participation. Most importantly, scientists agree that the best alternative to testing the brain for alcohol content (obviously not done on living subjects) is to test the arterial blood supply to the central nervous system, and breath alcohol concentration (BrAC) is directly proportional to arterial blood alcohol concentration (BAC). Many years of testing have validated the breath test as a reliable means of measuring the alcohol in the vascular system. This is an established scientific truth of great benefit to law enforcement. BrAC and BAC need not be compared, since both are equally reliable and established measures of intoxication.

WHY BREATH ALCOHOL TESTING WORKS

Blood alcohol analysis works because trained nurses and/or physicians use good sampling protocol and methods for collecting samples, and analysts and toxicologists use good protocol and methods for the analysis of the blood samples collected. Breath alcohol analysis works in the exact same fashion. When a trained, competent officer follows good protocol for the collection of a breath sample, and when that breath sample is analyzed on an established breath-alcohol instrument that is calibrated and operating properly, only then can a breath alcohol sample be considered an accurate measure of the alcohol content within a subject's body.



Missouri Department of Health and Senior Services

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Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 2-A

MISSOURI DWI STATUTES

Introduction

In recent years, statutes relating to DWI have become increasingly complex. There is also a large body of DWI-related case law that continues to expand rapidly. Hopefully, this material will help make the cases you handle more understandable and provide you with an efficient tool when working with them.

This section is not meant to be exhaustive, but to acquaint officers with some of the relevant statutes and case law on different issues, especially those surrounding the collection of chemical tests from a subject. For a more complete list of pertinent statutes and case law on a specific issue, please contact an attorney.

The General Counsel's Office of the Department of Revenue provides assistance to law enforcement officers and prosecutors in all areas where driver-licensing issues arise. Their telephone number is (573) 751-2580 and the fax number is (572) 751-815; their address is: General Counsel's Office, PO Box 475, Jefferson City, MO 65105-0475.

RELEVANT SECTIONS OF MISSOURI REVISED STATUTES

Chapter 302 Drivers' and Commercial Drivers' Licenses (Selected Sections)
302.500 – 302.545

Chapter 565 Offenses Against The Person (Selected Sections)
565.002, 565.024, 565.060

Chapter 577 Public Safety Offenses (Selected Sections)
577.001 – 577.060
577.201 – 577.530

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Missouri Revised Statutes, Chapter 302

Drivers' and Commercial Drivers' Licenses (Selected Sections)

August 28, 2012

Definitions.

302.500. As used in sections 302.500 to 302.540, the following terms mean:

- (1) "Alcohol concentration", the amount of alcohol in a person's blood at the time of the act alleged as shown by chemical analysis of the person's blood, breath, saliva or urine;
- (2) "Department", the department of revenue of the state of Missouri;
- (3) "Director", the director of the department of revenue or his authorized representative;
- (4) "Driver's license" or "license", a license, permit, or privilege to drive a motor vehicle issued under or granted by the laws of this state. The term includes any temporary license or instruction permit, any nonresident operating privilege, and the privilege of any person to drive a motor vehicle whether or not the person holds a valid license;
- (5) "Revocation", the termination by formal action of the department of a person's license. A revoked license is not subject to renewal or restoration except that an application for a new license may be presented and acted upon by the department after the expiration of the revocation period;
- (6) "State", a state, territory, or possession of the United States, the District of Columbia, the Commonwealth of Puerto Rico, and any province of Canada;
- (7) "Suspension", the temporary withdrawal by formal action of the department of a person's license. The suspension shall be for a period specifically designated by the department pursuant to the provisions of sections 302.500 to 302.540.

(L. 1983 S.B. 318 & 135 § 2, A.L. 1989 1st Ex. Sess. H.B. 3)

Effective 7-27-89

Determination by department to suspend or revoke license, when made, basis--final, when.

302.505. 1. The department shall suspend or revoke the license of any person upon its determination that the person was arrested upon probable cause to believe such person was driving a motor vehicle while the alcohol concentration in the person's blood, breath, or urine was eight-hundredths of one percent or more by weight, based on the definition of alcohol concentration in section 302.500, or where such person was less than twenty-one years of age when stopped and was stopped upon probable cause to believe such person was driving while intoxicated in violation of section 577.010, or driving with excessive blood alcohol content in violation of section 577.012, or upon probable cause to believe such person violated a state, county or municipal traffic offense and such person was driving with a blood alcohol content of two-hundredths of one percent or more by weight.

2. The department shall make a determination of these facts on the basis of the report of a law enforcement officer required in section 302.510, and this determination shall be final unless a hearing is requested and held. If a hearing is held, the department shall review the matter and make a final determination on the basis of evidence received at the hearing.

3. The determination of these facts by the department is independent of the determination of the same or similar facts in the adjudication of any criminal charges arising out of the same occurrence. The disposition of those criminal charges shall not affect any suspension or revocation under this section.

(L. 1983 S.B. 318 & 135 § 3, A.L. 1984 S.B. 608 & 681, A.L. 1991 S.B. 125 & 341, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38)

Effective 9-29-01

(2001) Motorist who was under age 21 and had a blood alcohol content of .133% when stopped was subject to license suspension; special safeguard provision requiring probable cause for the initial stop was not applicable. *Baldwin v. Director of Revenue*, 38 S.W.3d 401 (Mo.banc).

(2001) License suspension and revocation proceeding is a civil proceeding and thus the Sixth Amendment's Confrontation Clause does not apply. *Krieg v. Director of Revenue*, 39 S.W.3d 574 (Mo.App.E.D.).

(2003) Person sitting in driver's seat of vehicle, either asleep or unconscious and with key in ignition and engine running, is operating the vehicle within meaning of section. Cox v. Director of Revenue, 98 S.W.3d 548 (Mo.banc).

Arresting officer, duties--certain arrests not to be basis for administrative suspension or revocation.

302.510. 1. Except as provided in subsection 3 of this section, a law enforcement officer who arrests any person for a violation of any state statute related to driving while intoxicated or for a violation of a county or municipal ordinance prohibiting driving while intoxicated or a county or municipal alcohol-related traffic offense, and in which the alcohol concentration in the person's blood, breath, or urine was eight-hundredths of one percent or more by weight or two-hundredths of one percent or more by weight for anyone less than twenty-one years of age, shall forward to the department a certified report of all information relevant to the enforcement action, including information which adequately identifies the arrested person, a statement of the officer's grounds for belief that the person violated any state statute related to driving while intoxicated or was less than twenty-one years of age and was driving with two-hundredths of one percent or more by weight of alcohol in the person's blood, or a county or municipal ordinance prohibiting driving while intoxicated or a county or municipal alcohol-related traffic offense, a report of the results of any chemical tests which were conducted, and a copy of the citation and complaint filed with the court.

2. The report required by this section shall be certified under penalties of perjury for making a false statement to a public official and made on forms supplied by the department or in a manner specified by regulations of the department.

3. A county or municipal ordinance prohibiting driving while intoxicated or a county or municipal alcohol-related traffic offense may not be the basis for suspension or revocation of a driver's license pursuant to sections 302.500 to 302.540, unless the arresting law enforcement officer, other than an elected peace officer or official, has been licensed by the director of the department of public safety pursuant to the provisions of chapter 590.

(L. 1983 S.B. 318 & 135 § 4, A.L. 1984 S.B. 608 & 681, A.L. 1991 S.B. 125 & 341, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38, A.L. 2005 H.B. 487)

Notice of suspension or revocation by department--deemed received, when--contents.

302.515. 1. Upon receipt of the report of the law enforcement officer, the department shall make the determination described in section 302.505. If the department determines that the person is subject to license suspension or revocation, and if notice of suspension or revocation has not already been served upon the person by the enforcement officer as required in section 302.520, the department shall issue a notice of suspension or revocation.

2. The notice of suspension or revocation shall be mailed to the person at the last known address shown on the department's records, and to the address provided by the enforcement officer's report if that address differs from the address of record. The notice is deemed received three days after mailing, unless returned by postal authorities.

3. The notice of suspension or revocation shall clearly specify the reason and statutory grounds for the suspension or revocation, the effective date of the suspension or revocation, the right of the person to request a hearing, the procedure for requesting a hearing, and the date by which that request for a hearing must be made.

(L. 1983 S.B. 318 & 135 § 5, A.L. 1984 S.B. 608 & 681)

Arresting officer to serve notice of suspension or revocation, when--to possess license, issue temporary permit, give written notice of driver's rights and responsibilities--application for hearing.

302.520. 1. Whenever the chemical test results are available to the law enforcement officer while the arrested person is still in custody, and where the results show an alcohol concentration of eight-hundredths of one percent or more by weight of alcohol in such person's blood or where such person is less than twenty-one years of age and the results show that there is two-hundredths of one percent or more of alcohol in the person's blood, the officer, acting on behalf of the department, shall serve the notice of suspension or revocation personally on the arrested person.

2. When the law enforcement officer serves the notice of suspension or revocation, the officer shall take possession of any driver's license issued by this state which is held by the person. When the officer takes possession of a valid driver's license issued by this state, the officer, acting on behalf of the department, shall issue a temporary permit which is valid for fifteen days after its date of issuance and shall also give the person arrested a notice which shall inform the person of all rights and responsibilities pursuant to sections 302.500 to 302.540. The notice shall be in such form so that the arrested person may sign the original as evidence of receipt thereof. The notice shall also contain a detachable form permitting the arrested person to request a hearing. Signing the hearing request form and mailing such request to the department shall constitute a formal application for a hearing.

3. A copy of the completed notice of suspension or revocation form, a copy of any completed temporary permit form, a copy of the notice of rights and responsibilities given to the arrested person, including any request for hearing, and any driver's license taken into possession pursuant to this section shall be forwarded to the department by the officer along with the report required in section 302.510.

4. The department shall provide forms for notice of suspension or revocation, for notice of rights and responsibilities, for request for a hearing and for temporary permits to law enforcement agencies.

(L. 1983 S.B. 318 & 135 § 6, A.L. 1984 S.B. 608 & 681, A.L. 1991 S.B. 125 & 341, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38)

Effective 9-29-01

Suspension or revocation, when effective, duration--restricted driving privilege--effect of suspension or revocation by court on charges arising out of same occurrence--revocation due to alcohol-related offenses, requirements.

302.525. 1. The license suspension or revocation shall become effective fifteen days after the subject person has received the notice of suspension or revocation as provided in section 302.520, or is deemed to have received the notice of suspension or revocation by mail as provided in section 302.515. If a request for a hearing is received by or postmarked to the department within that fifteen-day period, the effective date of the suspension or revocation shall be stayed until a final order is issued following the hearing; provided, that any delay in the hearing which is caused or requested by the subject person or counsel representing that person without good cause shown shall not result in a stay of the suspension or revocation during the period of delay.

2. The period of license suspension or revocation under this section shall be as follows:

(1) If the person's driving record shows no prior alcohol-related enforcement contacts during the immediately preceding five years, the period of suspension shall be thirty days after the effective date of suspension, followed by a sixty-day period of restricted driving privilege as defined in section 302.010 and issued by the director of revenue. The restricted driving privilege shall not be issued until he or she has filed proof of financial responsibility with the department of revenue, in accordance with chapter 303, and is otherwise eligible. The restricted driving privilege shall indicate whether a functioning, certified ignition interlock device is required as a condition of operating a motor vehicle. A copy of the restricted driving privilege shall be given to the person and such person shall carry a copy of the restricted driving privilege while operating a motor vehicle. In no case shall restricted driving privileges be issued pursuant to this section or section 302.535 until the person has completed the first thirty days of a suspension under this section. If a person otherwise subject to the provisions of this subdivision files proof of installation with the department of revenue that any vehicle operated is equipped with a functioning, certified ignition interlock device, then the period of suspension shall be fifteen days, followed by a seventy-five day period of restricted driving privilege. Upon completion of such seventy-five day period of restricted driving privilege, upon compliance with other requirements of law, and upon filing of proof of financial responsibility with the department of revenue, in accordance with chapter 303, the license and driving privilege shall be reinstated. However, if the monthly monitoring reports during such seventy-five day period indicate that the ignition interlock device has registered a blood alcohol concentration level above the alcohol setpoint established by the department of transportation or such reports indicate that the ignition interlock device has been tampered with or circumvented, then the license and driving privilege of such person shall not be reinstated until the person completes an additional seventy-five day period of restricted driving privilege without any such violations. If the person fails to maintain such proof of the device with the director of revenue as required, the restricted driving privilege shall be terminated;

(2) The period of revocation shall be one year if the person's driving record shows one or more prior alcohol-related enforcement contacts during the immediately preceding five years;

(3) In no case shall restricted driving privileges be issued under this section to any person whose driving record shows one or more prior alcohol-related enforcement contacts until the person has completed the first thirty days of a suspension under this section and has filed proof with the department of revenue that any motor vehicle operated by the person is equipped with a functioning, certified ignition interlock device as a required condition of the restricted driving privilege. If the person fails to maintain such proof the restricted driving privilege shall be terminated.

3. For purposes of this section, "alcohol-related enforcement contacts" shall include any suspension or revocation under sections 302.500 to 302.540, any suspension or revocation entered in this or any other state for a refusal to submit to chemical testing under an implied consent law, and any conviction in this or any other state for a violation which involves driving while intoxicated, driving while under the influence of drugs or alcohol, or driving a vehicle while having an unlawful alcohol concentration.

4. Where a license is suspended or revoked under this section and the person is also convicted on charges arising out of the same occurrence for a violation of section 577.010 or 577.012 or for a violation of any county or municipal ordinance prohibiting driving while intoxicated or alcohol-related traffic offense, both the suspension or revocation under this section and any other suspension or revocation arising from such convictions shall be imposed, but the period of suspension or revocation under sections 302.500 to 302.540 shall be credited against any other suspension or revocation arising from such convictions, and the total period of suspension or revocation shall not exceed the longer of the two suspension or revocation periods.

5. Any person who has had a license to operate a motor vehicle revoked under this section or suspended under this section with one or more prior alcohol-related enforcement contacts showing on their driver record shall be required to file proof with the director of revenue that any motor vehicle operated by that person is equipped with a functioning, certified ignition interlock device as a required condition of reinstatement. The ignition interlock device shall further be required to be maintained on all motor vehicles operated by the person for a period of not less than six months immediately following the date of reinstatement. If the monthly monitoring reports show that the ignition interlock device has registered any confirmed blood alcohol concentration readings above the alcohol setpoint established by the department of transportation or that the person has tampered with or circumvented the ignition interlock device, then the period for which the person must maintain the ignition interlock device following the date of reinstatement shall be extended for an additional six months. If the person fails to maintain such proof with the director, the license shall be resuspended or revoked, as applicable.

(L. 1983 S.B. 318 & 135 § 7, A.L. 1984 S.B. 608 & 681, A.L. 1991 S.B. 125 & 341, A.L. 2002 H.B. 2062, A.L. 2008 S.B. 930 & 947, A.L. 2012 S.B. 480)

*Effective 10-01-13

Suspension or revocation, when effective, duration--restricted driving privilege--effect of suspension or revocation by court on charges arising out of same occurrence--revocation due to alcohol-related offenses, requirements.

302.525. 1. The license suspension or revocation shall become effective fifteen days after the subject person has received the notice of suspension or revocation as provided in section 302.520, or is deemed to have received the notice of suspension or revocation by mail as provided in section 302.515. If a request for a hearing is received by or postmarked to the department within that fifteen-day period, the effective date of the suspension or revocation shall be stayed until a final order is issued following the hearing; provided, that any delay in the hearing which is caused or requested by the subject person or counsel representing that person without good cause shown shall not result in a stay of the suspension or revocation during the period of delay.

2. The period of license suspension or revocation under this section shall be as follows:

(1) If the person's driving record shows no prior alcohol-related enforcement contacts during the immediately preceding five years, the period of suspension shall be thirty days after the effective date of suspension, followed by a sixty-day period of restricted driving privilege as defined in section 302.010 and issued by the director of revenue. The restricted driving privilege shall not be issued until he or she has filed proof of financial responsibility with the department of revenue, in accordance with chapter 303, and is otherwise eligible. In no case shall restricted driving privileges be issued pursuant to this section or section 302.535 until the person has completed the first thirty days of a suspension under this section;

(2) The period of revocation shall be one year if the person's driving record shows one or more prior alcohol-related enforcement contacts during the immediately preceding five years;

(3) In no case shall restricted driving privileges be issued under this section to any person whose driving record shows one or more prior alcohol-related enforcement contacts until the person has completed the first thirty days of a suspension under this section and has filed proof with the department of revenue that any motor vehicle operated by the person is equipped with a functioning, certified ignition interlock device as a required condition of the restricted driving privilege. If the person fails to maintain such proof the restricted driving privilege shall be terminated.

3. For purposes of this section, "alcohol-related enforcement contacts" shall include any suspension or revocation under sections 302.500 to 302.540, any suspension or revocation entered in this or any other state for a refusal to submit to chemical testing under an implied consent law, and any conviction in this or any other state for a violation which involves driving while intoxicated, driving while under the influence of drugs or alcohol, or driving a vehicle while having an unlawful alcohol concentration.

4. Where a license is suspended or revoked under this section and the person is also convicted on charges arising out of the same occurrence for a violation of section 577.010 or 577.012 or for a violation of any county or municipal ordinance prohibiting driving while intoxicated or alcohol-related traffic offense, both the suspension or revocation under this section and any other suspension or revocation arising from such convictions shall be imposed, but the period of suspension or revocation under sections 302.500 to 302.540 shall be credited against any other suspension or revocation arising from such convictions, and the total period of suspension or revocation shall not exceed the longer of the two suspension or revocation periods.

5. Any person who has had a license to operate a motor vehicle revoked under this section or suspended under this section with one or more prior alcohol-related enforcement contacts showing on their driver record shall be required to file proof with the director of revenue that any motor vehicle operated by that person is equipped with a functioning, certified ignition interlock device as a required condition of reinstatement. The ignition interlock device shall further be required to be maintained on all motor vehicles operated by the person for a period of not less than six months immediately following the date of reinstatement. If the person fails to maintain such proof with the director, the license shall be resuspended or revoked, as applicable.

(L. 1983 S.B. 318 & 135 § 7, A.L. 1984 S.B. 608 & 681, A.L. 1991 S.B. 125 & 341, A.L. 2002 H.B. 2062, A.L. 2008 S.B. 930 & 947)

Effective 7-01-09

*This section was amended by S.B. 480, 2012, effective 10-01-13.

**Request for administrative review, when made--temporary permit, duration--
telephone hearings permitted, when--hearing, venue, conduct--decision, notice, final
when--appeal for judicial review--rulemaking authority.**

302.530. 1. Any person who has received a notice of suspension or revocation may make a request within fifteen days of receipt of the notice for a review of the department's determination at a hearing. If the person's driver's license has not been previously surrendered, it may be surrendered at the time the request for a hearing is made.

2. At the time the request for a hearing is made, if it appears from the record that the person is the holder of a valid driver's license issued by this state, and that the driver's license has been surrendered, the department shall issue a temporary permit which shall be valid until the scheduled date for the hearing. The department may later issue an additional temporary permit or permits in order to stay the effective date of the suspension or revocation until the final order is issued following the hearing, as required by section 302.520.

3. The hearing may be held by telephone, or if requested by the person, such person's attorney or representative, at a regional location as designated by the director. The hearing shall be conducted by examiners who are licensed to practice law in the state of Missouri and who are employed by the department on a part-time or full-time basis as the department may determine.

4. The sole issue at the hearing shall be whether by a preponderance of the evidence the person was driving a vehicle pursuant to the circumstances set out in section 302.505. The burden of proof shall be on the state to adduce such evidence. If the department finds the affirmative of this issue, the suspension or revocation order shall be sustained. If the department finds the negative of the issue, the suspension or revocation order shall be rescinded.

5. The procedure at such hearing shall be conducted in accordance with chapter 536, with sections 302.500 to 302.540. A report certified under subsection 2 of section 302.510 shall be admissible in a like manner as a verified report as evidence of the facts stated therein and any provision of chapter 536 to the contrary shall not apply.

6. The department shall promptly notify the person of its decision including the reasons for that decision. Such notification shall include a notice advising the person that the department's decision shall be final within fifteen days from the date such notice was mailed unless the person challenges the department's decision within that time period by filing an appeal in the circuit court in the county where the arrest occurred.

7. Unless the person, within fifteen days after being notified of the department's decision, files an appeal for judicial review pursuant to section 302.535, the decision of the department shall be final.

8. The director may adopt any rules and regulations necessary to carry out the provisions of this section.

(L. 1983 S.B. 318 & 135 § 8, A.L. 1984 S.B. 608 & 681, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2005 H.B. 487, A.L. 2012 H.B. 1402)

(2002) Subsection 4 provision does not deprive agency or court of subject matter jurisdiction to hear challenge to notice of suspension. *Whitelaw v. Director of Revenue*, 73 S.W.3d 731 (Mo.App.E.D.).

Trial de novo, conduct, venue, what judge may hear, when--restricted driving privilege, when, duration of.

302.535. 1. Any person aggrieved by a decision of the department may file a petition for trial de novo by the circuit court. The burden of proof shall be on the state to adduce the evidence. Such trial shall be conducted pursuant to the Missouri rules of civil procedure and not as an appeal of an administrative decision pursuant to chapter 536. The petition shall be filed in the circuit court of the county where the arrest occurred. The case shall be decided by the judge sitting without a jury. Until January 1, 2002, the presiding judge of the circuit court may assign a traffic judge, pursuant to section 479.500, RSMo 1994, a circuit judge or an associate circuit judge to hear such petition. After January 1, 2002, pursuant to local court rule pursuant to article V, section 15 of the Missouri Constitution, the case may be assigned to a circuit judge or an associate circuit judge, or to a traffic judge pursuant to section 479.500.

2. The filing of a petition for trial de novo shall not result in a stay of the suspension or revocation order. A restricted driving privilege as defined in section 302.010 shall be issued in accordance with subsection 2 of section 302.525, if the person's driving record shows no prior alcohol-related enforcement contact during the immediately preceding five years. Such restricted driving privilege shall terminate on the date of the disposition of the petition for trial de novo.

3. In addition to the restricted driving privilege as permitted in subsection 2 of this section, the department may upon the filing of a petition for trial de novo issue a restricted driving privilege as defined in section 302.010. In determining whether to issue such a restrictive driving privilege, the department shall consider the number and the seriousness of prior convictions and the entire driving record of the driver.

4. Such time of restricted driving privilege pending disposition of trial de novo shall be counted toward any time of restricted driving privilege imposed pursuant to section 302.525. Nothing in this subsection shall be construed to prevent a person from maintaining his restricted driving privilege for an additional sixty days in order to meet the conditions imposed by section 302.540 for reinstating a person's driver's license.

(L. 1983 S.B. 318 & 135 § 9, A.L. 1984 S.B. 608 & 681, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38, A.L. 2002 H.B. 2062)

(2010) On petition for judicial review of an administrative suspension by the Director of Revenue of a motorist's license to drive, based on blood alcohol content violation, Director has burden of production and burden of persuasion; rules of civil procedure govern the trial de novo. *White v. Director of Revenue*, 321 S.W.3d 298 (Mo.banc).

Department to pay court costs and attorney fees, when.

302.536. If the judge upholds the department's ruling to suspend or revoke a person's license after a hearing conducted pursuant to subsection 1 of section 302.535, and the person appeals such ruling, the department shall pay any court costs and attorney fees the person incurs pursuant to such appeal if the court reverses the department's ruling to suspend or revoke such person's license.

(L. 1996 H.B. 1169 & 1271 merged with S.B. 722)

Reinstatement of license--completion of substance abuse traffic offender program a condition--individual assessment, judicial review--fees and cost, distribution of--treatment demonstration project may be created.

302.540. 1. No person who has had a license to operate a motor vehicle suspended or revoked under the provisions of sections 302.500 to 302.540 shall have that license reinstated until such person has participated in and successfully completed a substance abuse traffic offender program defined in section 302.010, or a program determined to be comparable by the department of mental health. Assignment recommendations, based upon the needs assessment as described in subdivision (22) of section 302.010, shall be delivered in writing to the person with written notice that the person is entitled to have such assignment recommendations reviewed by the court if the person objects to the recommendations. The person may file a motion in the associate division of the circuit court of the county in which such assignment was given, on a printed form provided by the state courts administrator, to have the court hear and determine such motion pursuant to the provisions of chapter 517. The motion shall name the person or entity making the needs assessment as the respondent and a copy of the motion shall be served upon the respondent in any manner allowed by law. Upon hearing the motion, the court may modify or waive any assignment recommendation that the court determines to be unwarranted based upon a review of the needs assessment, the person's driving record, the circumstances surrounding the offense, and the likelihood of the person committing a like offense in the future, except that the court may modify but may not waive the assignment to an education or rehabilitation program of a person determined to be a prior or persistent offender as defined in section 577.023 or of a person determined to have operated a motor vehicle with fifteen-hundredths of one percent or more by weight in such person's blood. Compliance with the court determination of the motion shall satisfy the provisions of this section for the purpose of reinstating such person's license to operate a motor vehicle. The respondent's personal appearance at any hearing conducted pursuant to this subsection shall not be necessary unless directed by the court.

2. The fees for the program authorized in subsection 1 of this section, or a portion thereof to be determined by the division of alcohol and drug abuse of the department of mental health, shall be paid by the person enrolled in the program. Any person who is enrolled in the program shall pay, in addition to any fee charged for the program, a supplemental fee to be determined by the department of mental health for the purposes of funding the substance abuse traffic offender program defined in section 302.010 and section 577.001 or a program determined to be comparable by the department of mental health. The administrator of the program shall remit to the division of alcohol and drug abuse of the department of mental health on or before the fifteenth day of each month the supplemental fee for all persons enrolled in the program, less two percent for administrative costs. Interest shall be charged on any unpaid balance of the supplemental fees due the division of alcohol and drug abuse pursuant to this section and shall accrue at a rate not to exceed the annual rate established pursuant to the provision of section 32.065 plus three percentage points. The supplemental fees and any interest received by the department of mental health pursuant to this section shall be deposited in the mental health earnings fund which is created in section 630.053.

3. Any administrator who fails to remit to the division of alcohol and drug abuse of the department of mental health the supplemental fees and interest for all persons enrolled in the program pursuant to this section shall be subject to a penalty equal to the amount of interest accrued on the supplemental fees due the division pursuant to this section. If the supplemental fees, interest, and penalties are not remitted to the division of alcohol and drug abuse of the department of mental health within six months of the due date, the attorney general of the state of Missouri shall initiate appropriate action of the collection of said fees and interest accrued. The court shall assess attorney fees and court costs against any delinquent program.

4. Court-ordered participation in a substance abuse traffic offender program, pursuant to section 577.049, shall satisfy the requirements of this section if the court action arose out of the same occurrence that resulted in a person's license being administratively suspended or revoked.

5. The division of alcohol and drug abuse of the department of mental health may create a treatment demonstration project within existing appropriations and shall develop and certify a program to provide education or rehabilitation services for individuals determined by the division to be serious or repeat offenders. The program shall qualify as a substance abuse traffic offender program. As used in this subsection, a "serious or repeat offender" is one who was determined to have a blood alcohol content of fifteen-hundredths of one percent or more by weight while operating a motor vehicle or a prior or persistent offender as defined in section 577.023.

(L. 1983 S.B. 318 & 135 § 10, A.L. 1984 S.B. 608 & 681, A.L. 1993 S.B. 167, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38, A.L. 2002 H.B. 2062, A.L. 2003 H.B. 600)

Effective 7-01-03

Additional reinstatement fee, license to operate motor vehicle, when--proof of financial responsibility, not required, when.

302.541. 1. In addition to other fees required by law, any person who has had a license to operate a motor vehicle suspended or revoked following a determination, pursuant to section 302.505, or section 577.010, 577.012, 577.041 or 577.510, or any county or municipal ordinance, where the defendant was represented by or waived the right to an attorney, that such person was driving while intoxicated or with a blood alcohol content of eight-hundredths of one percent or more by weight or, where such person was at the time of the arrest less than twenty-one years of age and was driving with a blood alcohol content of two-hundredths of one percent or more by weight, shall pay an additional fee of twenty-five dollars prior to the reinstatement or reissuance of the license.

2. Any person less than twenty-one years of age whose driving privilege has been suspended or revoked solely for a first determination pursuant to sections 302.500 to 302.540 that such person was driving a motor vehicle with two-hundredths of one percent or more blood alcohol content is exempt from filing proof of financial responsibility with the department of revenue in accordance with chapter 303 as a prerequisite for reinstatement of driving privileges or obtaining a restricted driving privilege as provided by section 302.525.

(L. 1991 S.B. 125 & 341 § 2, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38, A.L. 2005 H.B. 353 merged with S.B. 37, et al.)

(2001) Section is not ambiguous and exempts from requirement of filing proof of financial responsibility twenty-year-old motorist who had a blood alcohol content of .133% when stopped. Baldwin v. Director of Revenue, 38 S.W.3d 401 (Mo.banc).

Expungement of records, when.

302.545. 1. Any person who is less than twenty-one years of age and whose driving privilege has been suspended or revoked, for a first determination under sections 302.500 to 302.540, that such person was driving with two-hundredths of one percent of blood alcohol content, shall have all official records and all recordations maintained by the department of revenue of such suspension or revocation expunged two years after the date of such suspension or revocation, or when such person attains the age of twenty-one, whichever date first occurs. Such expungement shall be performed by the department of revenue without need of a court order. No records shall be expunged if the person was found guilty or pled guilty to operating a commercial motor vehicle, as defined in section 302.700, or if the person was holding a commercial driver's license at the time of the offense, with a blood alcohol content of at least four-hundredths of one percent.

2. The provisions of this section shall not apply to any person whose license is suspended or revoked for a second or subsequent time pursuant to subsection 1 of this section or who is convicted of any alcohol-related driving offense before the age of twenty-one including, but not limited to:

- (1) Driving while intoxicated pursuant to section 577.010; or
- (2) Driving with excessive blood alcohol content pursuant to section 577.012.

(L. 1996 H.B. 1169 & 1271 § 1 merged with S.B. 722 § 1, A.L. 2009 H.B. 683)

(2001) Expungement of records allowed for twenty-year-old motorist who had a blood alcohol content of .133% when stopped. Baldwin v. Director of Revenue, 38 S.W.3d 401 (Mo.banc).

Missouri Revised Statutes, Chapter 565

Offenses Against the Person (Selected Sections)

August 28, 2012

Definitions.

565.002. As used in this chapter, unless a different meaning is otherwise plainly required:

- (1) "Adequate cause" means cause that would reasonably produce a degree of passion in a person of ordinary temperament sufficient to substantially impair an ordinary person's capacity for self-control;
- (2) "Conduct" includes any act or omission;
- (3) "Deliberation" means cool reflection for any length of time no matter how brief;
- (4) "Intoxicated condition" means under the influence of alcohol, a controlled substance, or drug, or any combination thereof;
- (5) "Operates" means physically driving or operating or being in actual physical control of a motor vehicle;
- (6) "Serious physical injury" means physical injury that creates a substantial risk of death or that causes serious disfigurement or protracted loss or impairment of the function of any part of the body;
- (7) "Sudden passion" means passion directly caused by and arising out of provocation by the victim or another acting with the victim which passion arises at the time of the offense and is not solely the result of former provocation;
- (8) "Trier" means the judge or jurors to whom issues of fact, guilt or innocence, or the assessment and declaration of punishment are submitted for decision.

(L. 1983 S.B. 276, A.L. 1984 S.B. 448 § A)

Effective 10-1-84

Involuntary manslaughter, penalty.

565.024. 1. A person commits the crime of involuntary manslaughter in the first degree if he or she:

- (1) Recklessly causes the death of another person; or
- (2) While in an intoxicated condition operates a motor vehicle or vessel in this state and, when so operating, acts with criminal negligence to cause the death of any person; or
- (3) While in an intoxicated condition operates a motor vehicle or vessel in this state, and, when so operating, acts with criminal negligence to:
 - (a) Cause the death of any person not a passenger in the vehicle or vessel operated by the defendant, including the death of an individual that results from the defendant's vehicle leaving a highway, as defined by section 301.010, or the highway's right-of-way; or vessel leaving the water; or
 - (b) Cause the death of two or more persons; or
 - (c) Cause the death of any person while he or she has a blood alcohol content of at least eighteen-hundredths of one percent by weight of alcohol in such person's blood; or
- (4) Operates a motor vehicle in violation of subsection 2 of section 304.022, and when so operating, acts with criminal negligence to cause the death of any person authorized to operate an emergency vehicle, as defined in section 304.022, while such person is in the performance of official duties;
- (5) Operates a vessel in violation of subsections 1 and 2 of section 306.132, and when so operating acts with criminal negligence to cause the death of any person authorized to operate an emergency watercraft, as defined in section 306.132, while such person is in the performance of official duties.

2. Involuntary manslaughter in the first degree under subdivision (1) or (2) of subsection 1 of this section is a class C felony. Involuntary manslaughter in the first degree under subdivision (3) of subsection 1 of this section is a class B felony. A second or subsequent violation of subdivision (3) of subsection 1 of this section is a class A felony. For any violation of subdivision (3) of subsection 1 of this section, the minimum prison term which the defendant must serve shall be eighty-five percent of his or her sentence. Any violation of subdivisions (4) and (5) of subsection 1 of this section is a class B felony.

3. A person commits the crime of involuntary manslaughter in the second degree if he acts with criminal negligence to cause the death of any person.

4. Involuntary manslaughter in the second degree is a class D felony.

(L. 1983 S.B. 276, A.L. 1984 S.B. 448 § A, A.L. 1986 H.B. 1596, A.L. 1999 S.B. 328, et al., A.L. 2005 H.B. 972 merged with S.B. 37, et al., A.L. 2005 1st Ex. Sess. H.B. 2, A.L. 2006 S.B. 872, et al., A.L. 2008 H.B. 1715)

Assault, second degree, penalty.

565.060. 1. A person commits the crime of assault in the second degree if he:

- (1) Attempts to kill or knowingly causes or attempts to cause serious physical injury to another person under the influence of sudden passion arising out of adequate cause; or
 - (2) Attempts to cause or knowingly causes physical injury to another person by means of a deadly weapon or dangerous instrument; or
 - (3) Recklessly causes serious physical injury to another person; or
 - (4) While in an intoxicated condition or under the influence of controlled substances or drugs, operates a motor vehicle in this state and, when so operating, acts with criminal negligence to cause physical injury to any other person than himself; or
 - (5) Recklessly causes physical injury to another person by means of discharge of a firearm; or
 - (6) Operates a motor vehicle in violation of subsection 2 of section 304.022, and when so operating, acts with criminal negligence to cause physical injury to any person authorized to operate an emergency vehicle, as defined in section 304.022, while such person is in the performance of official duties.
2. The defendant shall have the burden of injecting the issue of influence of sudden passion arising from adequate cause under subdivision (1) of subsection 1 of this section.
3. Assault in the second degree is a class C felony.

(L. 1977 S.B. 60, A.L. 1983 S.B. 276, A.L. 1984 S.B. 448 § A, S.B. 602, A.L. 1993 S.B. 180, A.L. 2006 S.B. 872, et al.)

Missouri Revised Statutes, Chapter 577 Public Safety Offenses (selected sections)

August 28, 2012

Chapter definitions.

577.001. 1. As used in this chapter, the term "court" means any circuit, associate circuit, or municipal court, including traffic court, but not any juvenile court or drug court.

2. As used in this chapter, the term "drive", "driving", "operates" or "operating" means physically driving or operating a motor vehicle.

3. As used in this chapter, a person is in an "intoxicated condition" when he is under the influence of alcohol, a controlled substance, or drug, or any combination thereof.

4. As used in this chapter, the term "law enforcement officer" or "arresting officer" includes the definition of law enforcement officer in subdivision (17) of section 556.061 and military policemen conducting traffic enforcement operations on a federal military installation under military jurisdiction in the state of Missouri.

5. As used in this chapter, "substance abuse traffic offender program" means a program certified by the division of alcohol and drug abuse of the department of mental health to provide education or rehabilitation services pursuant to a professional assessment screening to identify the individual needs of the person who has been referred to the program as the result of an alcohol- or drug-related traffic offense. Successful completion of such a program includes participation in any education or rehabilitation program required to meet the needs identified in the assessment screening. The assignment recommendations based upon such assessment shall be subject to judicial review as provided in subsection 7 of section 577.041.

(L. 1982 S.B. 513, A.L. 1986 H.B. 1531, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2005 H.B. 972 merged with S.B. 37, et al.)

(2003) Person sitting in driver's seat of vehicle, either asleep or unconscious and with key in ignition and engine running, is operating the vehicle within meaning of section. Cox v. Director of Revenue, 98 S.W.3d 548 (Mo.banc).

Intoxication--related traffic offenses, policies required for forwarding to MULES.

577.005. 1. Each law enforcement agency shall adopt a policy requiring arrest information for all intoxication-related traffic offenses be forwarded to the central repository as required by section 43.503 and shall certify adoption of such policy when applying for any grants administered by the department of public safety.

2. Each county prosecuting attorney and municipal prosecutor shall adopt a policy requiring charge information for all intoxication-related traffic offenses be forwarded to the central repository as required by section 43.503 and shall certify adoption of such policy when applying for any grants administered by the department of public safety.

3. Effective January 1, 2011, the highway patrol shall, based on the data submitted, maintain regular accountability reports of intoxication-related traffic offense arrests, charges, and dispositions.

(L. 2010 H.B. 1695, et al.)

Intoxication-related traffic offenses, municipal judges to receive adequate instruction--written policy on timely disposition of cases--report required.

577.006. 1. Each municipal judge shall receive adequate instruction on the laws related to intoxication-related traffic offenses as defined in section 577.023 including jurisdictional issues related to such offenses, reporting requirements to the highway patrol central repository as set out in section 43.503 and required assessment for offenders under the substance abuse traffic offender program (SATOP). Each municipal judge shall adopt a written policy requiring that municipal court personnel timely report all dispositions of all charges for intoxication-related traffic offenses to the central repository.

2. Each municipal court shall provide a copy of its written policy for reporting dispositions of intoxication-related traffic offenses to the office of state courts administrator and the highway patrol. To assist municipal courts, the office of state courts administrator may create a model policy for the reporting of dispositions of all charges for intoxication-related traffic offenses.

3. Each municipal division of every circuit court in the state of Missouri shall prepare a report every six months. The report shall include, but shall not be limited to, the total number and disposition of every

intoxication-related traffic offense adjudicated, dismissed or pending in its municipal court division. The municipal court division shall submit said report to the circuit court en banc. The report shall include the six-month period beginning January first and ending June thirtieth and the six-month period beginning July first and ending December thirty-first of each year. The report shall be submitted to the circuit court en banc no later than sixty days following the end of the reporting period. The circuit court en banc shall make recommendations or take any action it deems appropriate based on its review of said reports.

(L. 2010 H.B. 1695, et al.)

Driving while intoxicated--sentencing restrictions, Jackson County and certain judicial circuits.

577.010. 1. A person commits the crime of "driving while intoxicated" if he operates a motor vehicle while in an intoxicated or drugged condition.

2. Driving while intoxicated is for the first offense, a class B misdemeanor. No person convicted of or pleading guilty to the offense of driving while intoxicated shall be granted a suspended imposition of sentence for such offense, unless such person shall be placed on probation for a minimum of two years.

3. Notwithstanding the provisions of subsection 2 of this section, in a circuit where a DWI court or docket created under section 478.007 or other court-ordered treatment program is available, no person who operated a motor vehicle with fifteen-hundredths of one percent or more by weight of alcohol in such person's blood shall be granted a suspended imposition of sentence unless the individual participates and successfully completes a program under such DWI court or docket or other court-ordered treatment program.

4. If a person is not granted a suspended imposition of sentence for the reasons described in subsection 3 of this section for such first offense:

(1) If the individual operated the motor vehicle with fifteen-hundredths to twenty-hundredths of one percent by weight of alcohol in such person's blood, the required term of imprisonment shall be not less than forty-eight hours;

(2) If the individual operated the motor vehicle with greater than twenty-hundredths of one percent by weight of alcohol in such person's blood, the required term of imprisonment shall be not less than five days.

(L. 1977 S.B. 60, A.L. 1982 S.B. 513, A.L. 2010 H.B. 1695, et al.)

(2004) Section applies to the operation of motorized bicycles. State v. Laplante, 148 S.W.3d 347 (Mo.App.S.D.).

Driving with excessive blood alcohol content--sentencing restrictions, Jackson County and certain judicial circuits.

577.012. 1. A person commits the crime of "driving with excessive blood alcohol content" if such person operates a motor vehicle in this state with eight-hundredths of one percent or more by weight of alcohol in such person's blood.

2. As used in this section, percent by weight of alcohol in the blood shall be based upon grams of alcohol per one hundred milliliters of blood or two hundred ten liters of breath and may be shown by chemical analysis of the person's blood, breath, saliva or urine. For the purposes of determining the alcoholic content of a person's blood under this section, the test shall be conducted in accordance with the provisions of sections 577.020 to 577.041.

3. For the first offense, driving with excessive blood alcohol content is a class B misdemeanor.

4. In a circuit where a DWI court or docket created under section 478.007 or other court-ordered treatment program is available, no person who operated a motor vehicle with fifteen-hundredths of one percent or more by weight of alcohol in such person's blood shall be granted a suspended imposition of sentence unless the individual participates and successfully completes a program under such DWI court or docket or other court-ordered treatment program.

5. If a person is not granted a suspended imposition of sentence for the reasons described in subsection 4 of this section, for such first offense:

(1) If the individual operated the motor vehicle with fifteen-hundredths to twenty-hundredths of one percent by weight of alcohol in such person's blood, the required term of imprisonment shall be not less than forty-eight hours;

(2) If the individual operated the motor vehicle with greater than twenty-hundredths of one percent by weight of alcohol in such person's blood, the required term of imprisonment shall be not less than five days.

(L. 1975 S.B. 32, A.L. 1982 S.B. 513, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38, A.L. 2010 H.B. 1695, et al.)

*Transferred 1978; formerly 564.439

Consumption of alcoholic beverages in moving motor vehicle, prohibited when--infraction--records, not to appear on.

577.017. 1. No person shall consume any alcoholic beverage while operating a moving motor vehicle upon the highways, as defined in section 301.010.

2. Any person found guilty of violating the provisions of this section is guilty of an infraction.

3. Any infraction under this section shall not reflect on any records with the department of revenue.

(L. 1991 S.B. 125 & 341 § 1)

Effective 7-1-92

Citation of law.

577.019. Sections 577.019 to 577.021 shall be known as the Alan Woods Law.

(L. 2006 S.B. 872, et al., § 577.020 subsec. 1)

Chemical tests for alcohol content of blood--consent implied, when--administered, when, how--information available to person tested, contents--videotaping of chemical or field sobriety test admissible evidence.

577.020. 1. Any person who operates a motor vehicle upon the public highways of this state shall be deemed to have given consent to, subject to the provisions of sections 577.019 to 577.041, a chemical test or tests of the person's breath, blood, saliva or urine for the purpose of determining the alcohol or drug content of the person's blood pursuant to the following circumstances:

(1) If the person is arrested for any offense arising out of acts which the arresting officer had reasonable grounds to believe were committed while the person was driving a motor vehicle while in an intoxicated or drugged condition; or

(2) If the person is under the age of twenty-one, has been stopped by a law enforcement officer, and the law enforcement officer has reasonable grounds to believe that such person was driving a motor vehicle with a blood alcohol content of two-hundredths of one percent or more by weight; or

(3) If the person is under the age of twenty-one, has been stopped by a law enforcement officer, and the law enforcement officer has reasonable grounds to believe that such person has committed a violation of the traffic laws of the state, or any political subdivision of the state, and such officer has reasonable grounds to believe, after making such stop, that such person has a blood alcohol content of two-hundredths of one percent or greater;

(4) If the person is under the age of twenty-one, has been stopped at a sobriety checkpoint or roadblock and the law enforcement officer has reasonable grounds to believe that such person has a blood alcohol content of two-hundredths of one percent or greater;

(5) If the person, while operating a motor vehicle, has been involved in a motor vehicle collision which resulted in a fatality or a readily apparent serious physical injury as defined in section 565.002, or has been arrested as evidenced by the issuance of a uniform traffic ticket for the violation of any state law or county or municipal ordinance with the exception of equipment violations contained in chapter 306, or similar provisions contained in county or municipal ordinances; or

(6) If the person, while operating a motor vehicle, has been involved in a motor vehicle collision which resulted in a fatality or serious physical injury as defined in section 565.002.

The test shall be administered at the direction of the law enforcement officer whenever the person has been arrested or stopped for any reason.

2. The implied consent to submit to the chemical tests listed in subsection 1 of this section shall be limited to not more than two such tests arising from the same arrest, incident or charge.

3. Chemical analysis of the person's breath, blood, saliva, or urine to be considered valid pursuant to the provisions of sections 577.019 to 577.041 shall be performed according to methods approved by the state department of health and senior services by licensed medical personnel or by a person possessing a valid permit issued by the state department of health and senior services for this purpose.
4. The state department of health and senior services shall approve satisfactory techniques, devices, equipment, or methods to be considered valid pursuant to the provisions of sections 577.019 to 577.041 and shall establish standards to ascertain the qualifications and competence of individuals to conduct analyses and to issue permits which shall be subject to termination or revocation by the state department of health and senior services.
5. The person tested may have a physician, or a qualified technician, chemist, registered nurse, or other qualified person at the choosing and expense of the person to be tested, administer a test in addition to any administered at the direction of a law enforcement officer. The failure or inability to obtain an additional test by a person shall not preclude the admission of evidence relating to the test taken at the direction of a law enforcement officer.
6. Upon the request of the person who is tested, full information concerning the test shall be made available to such person. Full information is limited to the following:
 - (1) The type of test administered and the procedures followed;
 - (2) The time of the collection of the blood or breath sample or urine analyzed;
 - (3) The numerical results of the test indicating the alcohol content of the blood and breath and urine;
 - (4) The type and status of any permit which was held by the person who performed the test;
 - (5) If the test was administered by means of a breath-testing instrument, the date of performance of the most recent required maintenance of such instrument.Full information does not include manuals, schematics, or software of the instrument used to test the person or any other material that is not in the actual possession of the state. Additionally, full information does not include information in the possession of the manufacturer of the test instrument.
7. Any person given a chemical test of the person's breath pursuant to subsection 1 of this section or a field sobriety test may be videotaped during any such test at the direction of the law enforcement officer. Any such video recording made during the chemical test pursuant to this subsection or a field sobriety test shall be admissible as evidence at either any trial of such person for either a violation of any state law or county or municipal ordinance, or any license revocation or suspension proceeding pursuant to the provisions of chapter 302.

(L. 1977 S.B. 60, A.L. 1982 S.B. 513, A.L. 1983 S.B. 318 & 135, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 1998 S.B. 634, A.L. 2001 H.B. 144 & 46, A.L. 2006 S.B. 872, et al.)

Chemical testing authorized--reasonable efforts to test required--admissibility--severability clause.

- 577.021. 1. Any state, county or municipal law enforcement officer who has the power of arrest for violations of section 577.010 or 577.012 and who is certified pursuant to chapter 590 may, prior to arrest, administer a chemical test to any person suspected of operating a motor vehicle in violation of section 577.010 or 577.012.
2. Any state, county, or municipal law enforcement officer who has the power of arrest for violations of section 577.010 or 577.012 and who is certified under chapter 590 shall make all reasonable efforts to administer a chemical test to any person suspected of driving a motor vehicle involved in a collision which resulted in a fatality or serious physical injury as defined in section 565.002.
3. A test administered pursuant to this section shall be admissible as evidence of probable cause to arrest and as exculpatory evidence, but shall not be admissible as evidence of blood alcohol content. The provisions of sections 577.019 and 577.020 shall not apply to a test administered prior to arrest pursuant to this section.

The provisions changing chapter 577 are severable from this legislation. The general assembly would have enacted the remainder of this legislation without the changes made to chapter 577, and the remainder of the legislation is not essentially and inseparably connected with or dependent upon the changes to chapter 577.

(L. 1993 S.B. 167, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38, A.L. 2006 S.B. 872, et al.)

Aggravated, chronic, persistent and prior offenders--enhanced penalties--imprisonment requirements, exceptions--procedures--definitions.

577.023. 1. For purposes of this section, unless the context clearly indicates otherwise:

(1) An "aggravated offender" is a person who:

(a) Has pleaded guilty to or has been found guilty of three or more intoxication-related traffic offenses; or
(b) Has pleaded guilty to or has been found guilty of one or more intoxication-related traffic offense and, in addition, any of the following: involuntary manslaughter under subdivision (2) or (3) of subsection 1 of section 565.024; murder in the second degree under section 565.021, where the underlying felony is an intoxication-related traffic offense; or assault in the second degree under subdivision (4) of subsection 1 of section 565.060; or assault of a law enforcement officer in the second degree under subdivision (4) of subsection 1 of section 565.082;

(2) A "chronic offender" is:

(a) A person who has pleaded guilty to or has been found guilty of four or more intoxication-related traffic offenses; or

(b) A person who has pleaded guilty to or has been found guilty of, on two or more separate occasions, any combination of the following: involuntary manslaughter under subdivision (2) or (3) of subsection 1 of section 565.024; murder in the second degree under section 565.021, where the underlying felony is an intoxication-related traffic offense; assault in the second degree under subdivision (4) of subsection 1 of section 565.060; or assault of a law enforcement officer in the second degree under subdivision (4) of subsection 1 of section 565.082; or

(c) A person who has pleaded guilty to or has been found guilty of two or more intoxication-related traffic offenses and, in addition, any of the following: involuntary manslaughter under subdivision (2) or (3) of subsection 1 of section 565.024; murder in the second degree under section 565.021, where the underlying felony is an intoxication-related traffic offense; assault in the second degree under subdivision (4) of subsection 1 of section 565.060; or assault of a law enforcement officer in the second degree under subdivision (4) of subsection 1 of section 565.082;

(3) "Continuous alcohol monitoring", automatically testing breath, blood, or transdermal alcohol concentration levels and tampering attempts at least once every hour, regardless of the location of the person who is being monitored, and regularly transmitting the data. Continuous alcohol monitoring shall be considered an electronic monitoring service under subsection 3 of section 217.690;

(4) An "intoxication-related traffic offense" is driving while intoxicated, driving with excessive blood alcohol content, involuntary manslaughter pursuant to subdivision (2) or (3) of subsection 1 of section 565.024, murder in the second degree under section 565.021, where the underlying felony is an intoxication-related traffic offense, assault in the second degree pursuant to subdivision (4) of subsection 1 of section 565.060, assault of a law enforcement officer in the second degree pursuant to subdivision (4) of subsection 1 of section 565.082, or driving under the influence of alcohol or drugs in violation of state law or a county or municipal ordinance;

(5) A "persistent offender" is one of the following:

(a) A person who has pleaded guilty to or has been found guilty of two or more intoxication-related traffic offenses;

(b) A person who has pleaded guilty to or has been found guilty of involuntary manslaughter pursuant to subdivision (2) or (3) of subsection 1 of section 565.024, assault in the second degree pursuant to subdivision (4) of subsection 1 of section 565.060, assault of a law enforcement officer in the second degree pursuant to subdivision (4) of subsection 1 of section 565.082; and

(6) A "prior offender" is a person who has pleaded guilty to or has been found guilty of one intoxication-related traffic offense, where such prior offense occurred within five years of the occurrence of the intoxication-related traffic offense for which the person is charged.

2. Any person who pleads guilty to or is found guilty of a violation of section 577.010 or 577.012 who is alleged and proved to be a prior offender shall be guilty of a class A misdemeanor.

3. Any person who pleads guilty to or is found guilty of a violation of section 577.010 or 577.012 who is alleged and proved to be a persistent offender shall be guilty of a class D felony.

4. Any person who pleads guilty to or is found guilty of a violation of section 577.010 or section 577.012 who is alleged and proved to be an aggravated offender shall be guilty of a class C felony.

5. Any person who pleads guilty to or is found guilty of a violation of section 577.010 or section 577.012 who is alleged and proved to be a chronic offender shall be guilty of a class B felony.

6. No state, county, or municipal court shall suspend the imposition of sentence as to a prior offender, persistent offender, aggravated offender, or chronic offender under this section nor sentence such person to pay a fine in lieu of a term of imprisonment, section 557.011 to the contrary notwithstanding.

(1) No prior offender shall be eligible for parole or probation until he or she has served a minimum of ten days imprisonment:

(a) Unless as a condition of such parole or probation such person performs at least thirty days involving at least two hundred forty hours of community service under the supervision of the court in those jurisdictions which have a recognized program for community service; or

(b) The offender participates in and successfully completes a program established pursuant to section 478.007 or other court-ordered treatment program, if available, and as part of either program, the offender performs at least thirty days of community service under the supervision of the court.

(2) No persistent offender shall be eligible for parole or probation until he or she has served a minimum of thirty days imprisonment:

(a) Unless as a condition of such parole or probation such person performs at least sixty days involving at least four hundred eighty hours of community service under the supervision of the court; or

(b) The offender participates in and successfully completes a program established pursuant to section 478.007 or other court-ordered treatment program, if available, and as part of either program, the offender performs at least sixty days of community service under the supervision of the court.

(3) No aggravated offender shall be eligible for parole or probation until he or she has served a minimum of sixty days imprisonment.

(4) No chronic offender shall be eligible for parole or probation until he or she has served a minimum of two years imprisonment.

In addition to any other terms or conditions of probation, the court shall consider, as a condition of probation for any person who pleads guilty to or is found guilty of an intoxication-related traffic offense, requiring the offender to abstain from consuming or using alcohol or any products containing alcohol as demonstrated by continuous alcohol monitoring or by verifiable breath alcohol testing performed a minimum of four times per day as scheduled by the court for such duration as determined by the court, but not less than ninety days. The court may, in addition to imposing any other fine, costs, or assessments provided by law, require the offender to bear any costs associated with continuous alcohol monitoring or verifiable breath alcohol testing.

7. The state, county, or municipal court shall find the defendant to be a prior offender, persistent offender, aggravated offender, or chronic offender if:

(1) The indictment or information, original or amended, or the information in lieu of an indictment pleads all essential facts warranting a finding that the defendant is a prior offender or persistent offender; and

(2) Evidence is introduced that establishes sufficient facts pleaded to warrant a finding beyond a reasonable doubt the defendant is a prior offender, persistent offender, aggravated offender, or chronic offender; and

(3) The court makes findings of fact that warrant a finding beyond a reasonable doubt by the court that the defendant is a prior offender, persistent offender, aggravated offender, or chronic offender.

8. In a jury trial, the facts shall be pleaded, established and found prior to submission to the jury outside of its hearing.

9. In a trial without a jury or upon a plea of guilty, the court may defer the proof in findings of such facts to a later time, but prior to sentencing.

10. The defendant shall be accorded full rights of confrontation and cross-examination, with the opportunity to present evidence, at such hearings.

11. The defendant may waive proof of the facts alleged.

12. Nothing in this section shall prevent the use of presentence investigations or commitments.

13. At the sentencing hearing both the state, county, or municipality and the defendant shall be permitted to present additional information bearing on the issue of sentence.

14. The pleas or findings of guilt shall be prior to the date of commission of the present offense.

15. The court shall not instruct the jury as to the range of punishment or allow the jury, upon a finding of guilt, to assess and declare the punishment as part of its verdict in cases of prior offenders, persistent offenders, aggravated offenders, or chronic offenders.

16. Evidence of a prior conviction, plea of guilty, or finding of guilt in an intoxication-related traffic offense shall be heard and determined by the trial court out of the hearing of the jury prior to the submission of the case to the jury, and shall include but not be limited to evidence received by a search of the records of the Missouri uniform law enforcement system, including criminal history records from the

central repository or records from the driving while intoxicated tracking system (DWITS) maintained by the Missouri state highway patrol, or the certified driving record maintained by the Missouri department of revenue. After hearing the evidence, the court shall enter its findings thereon. A plea of guilty or a finding of guilt followed by incarceration, a fine, a suspended imposition of sentence, suspended execution of sentence, probation or parole or any combination thereof in any intoxication-related traffic offense in a state, county or municipal court or any combination thereof shall be treated as a prior plea of guilty or finding of guilt for purposes of this section.

(L. 1982 S.B. 513, A.L. 1983 S.B. 318 & 135, A.L. 1991 S.B. 125 & 341, A.L. 1993 S.B. 167 merged with S.B. 180, A.L. 1998 S.B. 634, A.L. 2001 H.B. 302 & 38, A.L. 2005 H.B. 353 merged with H.B. 972 and S.B. 37, et al. merged with H.B. 353, A.L. 2005 1st Ex. Sess. H.B. 2, A.L. 2008 H.B. 1715, A.L. 2008 H.B. 1715 merged with S.B. 930 & 947, A.L. 2009 H.B. 62, A.L. 2010 H.B. 1695, et al., A.L. 2011 H.B. 199, A.L. 2012 S.B. 480)

(2005) Provision of section enhancing driving while intoxicated charge from misdemeanor to felony, by including prior DWI charges only from courts in which the judge was a lawyer, is constitutional under the Equal Protection and Due Process clauses. State v. Pike, 162 S.W.3d 464 (Mo.banc).

Chemical tests, results, valid, when--department of health and senior services to approve methods and devices and establish standards.

577.026. 1. Chemical tests of the person's breath, blood, saliva, or urine to be considered valid under the provisions of sections 577.020 to 577.041, shall be performed according to methods and devices approved by the state department of health and senior services by licensed medical personnel or by a person possessing a valid permit issued by the state department of health and senior services for this purpose.
2. The state department of health and senior services shall approve satisfactory techniques, devices, equipment, or methods to conduct tests required by sections 577.020 to 577.041, and shall establish standards as to the qualifications and competence of individuals to conduct analyses and to issue permits which shall be subject to termination or revocation by the state department of health and senior services.

(L. 1982 S.B. 513)

Blood alcohol content tests, how made, by whom, when--person tested to receive certain information, when.

577.029. A licensed physician, registered nurse, or trained medical technician, acting at the request and direction of the law enforcement officer, shall withdraw blood for the purpose of determining the alcohol content of the blood, unless such medical personnel, in his or her good faith medical judgment, believes such procedure would endanger the life or health of the person in custody. Blood may be withdrawn only by such medical personnel, but such restriction shall not apply to the taking of a breath test, a saliva specimen, or a urine specimen. In withdrawing blood for the purpose of determining the alcohol content thereof, only a previously unused and sterile needle and sterile vessel shall be utilized and the withdrawal shall otherwise be in strict accord with accepted medical practices. Upon the request of the person who is tested, full information concerning the test taken at the direction of the law enforcement officer shall be made available to him or her.

(L. 1982 S.B. 513, A.L. 2007 H.B. 574, A.L. 2009 H.B. 62)

Effective 7-09-09

Persons administering tests not liable, when.

577.031. No person who administers any test pursuant to the provisions of sections 577.020 to 577.041 upon the request of a law enforcement officer, no hospital in or with which such person is employed or is otherwise associated or in which such test is administered, and no other person, firm, or corporation by whom or with which such person is employed or is in any way associated, shall be civilly liable in damages to the person tested unless for gross negligence or by willful or wanton act or omission.

(L. 1982 S.B. 513)

Inability of person to be tested to refuse, effect.

577.033. Any person who is dead, unconscious or who is otherwise in a condition rendering him incapable of refusing to take a test as provided in sections 577.020 to 577.041 shall be deemed not to have withdrawn the consent provided by section 577.020 and the test or tests may be administered.

(L. 1982 S.B. 513)

Chemical tests, results admitted into evidence, when, effect of.

577.037. 1. Upon the trial of any person for violation of any of the provisions of section 565.024, or section 565.060, or section 577.010 or 577.012, or upon the trial of any criminal action or violations of county or municipal ordinances or in any license suspension or revocation proceeding pursuant to the provisions of chapter 302 arising out of acts alleged to have been committed by any person while driving a motor vehicle while in an intoxicated condition, the amount of alcohol in the person's blood at the time of the act alleged as shown by any chemical analysis of the person's blood, breath, saliva or urine is admissible in evidence and the provisions of subdivision (5) of section 491.060 shall not prevent the admissibility or introduction of such evidence if otherwise admissible. If there was eight-hundredths of one percent or more by weight of alcohol in the person's blood, this shall be prima facie evidence that the person was intoxicated at the time the specimen was taken.

2. Percent by weight of alcohol in the blood shall be based upon grams of alcohol per one hundred milliliters of blood or grams of alcohol per two hundred ten liters of breath.

3. The foregoing provisions of this section shall not be construed as limiting the introduction of any other competent evidence bearing upon the question whether the person was intoxicated.

4. A chemical analysis of a person's breath, blood, saliva or urine, in order to give rise to the presumption or to have the effect provided for in subsection 1 of this section, shall have been performed as provided in sections 577.020 to 577.041 and in accordance with methods and standards approved by the state department of health and senior services.

5. Any charge alleging a violation of section 577.010 or 577.012 or any county or municipal ordinance prohibiting driving while intoxicated or driving under the influence of alcohol shall be dismissed with prejudice if a chemical analysis of the defendant's breath, blood, saliva, or urine performed in accordance with sections 577.020 to 577.041 and rules promulgated thereunder by the state department of health and senior services demonstrate that there was less than eight-hundredths of one percent of alcohol in the defendant's blood unless one or more of the following considerations cause the court to find a dismissal unwarranted:

(1) There is evidence that the chemical analysis is unreliable as evidence of the defendant's intoxication at the time of the alleged violation due to the lapse of time between the alleged violation and the obtaining of the specimen;

(2) There is evidence that the defendant was under the influence of a controlled substance, or drug, or a combination of either or both with or without alcohol; or

(3) There is substantial evidence of intoxication from physical observations of witnesses or admissions of the defendant.

(L. 1982 S.B. 513, A.L. 1983 S.B. 318 & 135, A.L. 1988 H.B. 1242 Revision, A.L. 1993 S.B. 167 merged with S.B. 180, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2001 H.B. 302 & 38)

Effective 9-29-01

(2005) Invocation of right of refusal under section 577.041 negates implied consent; a chemical test performed in spite of such refusal is inadmissible in a revocation hearing. *Murphy v. Director of Revenue*, 170 S.W.3d 507 (Mo.App.W.D.).

Arrest without warrant, lawful, when.

577.039. An arrest without a warrant by a law enforcement officer, including a uniformed member of the state highway patrol, for a violation of section 577.010 or 577.012 is lawful whenever the arresting officer has reasonable grounds to believe that the person to be arrested has violated the section, whether or not the violation occurred in the presence of the arresting officer.

(L. 1982 S.B. 513, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2010 H.B. 1695, et al.)

(2006) Accident under section requires either property damage or personal injury. *Reed v. Director of Revenue*, 184 S.W.3d 564 (Mo.banc).

**Refusal to submit to chemical test--notice, report of peace officer, contents--
revocation of license, hearing--evidence, admissibility--reinstatement of licenses--
substance abuse traffic offender program--assignment recommendations, judicial
review--fees.**

577.041. 1. If a person under arrest, or who has been stopped pursuant to subdivision (2) or (3) of subsection 1 of section 577.020, refuses upon the request of the officer to submit to any test allowed pursuant to section 577.020, then evidence of the refusal shall be admissible in a proceeding pursuant to section 565.024, 565.060, or 565.082, or section 577.010 or 577.012. The request of the officer shall include the reasons of the officer for requesting the person to submit to a test and also shall inform the person that evidence of refusal to take the test may be used against such person and that the person's license shall be immediately revoked upon refusal to take the test. If a person when requested to submit to any test allowed pursuant to section 577.020 requests to speak to an attorney, the person shall be granted twenty minutes in which to attempt to contact an attorney. If upon the completion of the twenty-minute period the person continues to refuse to submit to any test, it shall be deemed a refusal. In this event, the officer shall, on behalf of the director of revenue, serve the notice of license revocation personally upon the person and shall take possession of any license to operate a motor vehicle issued by this state which is held by that person. The officer shall issue a temporary permit, on behalf of the director of revenue, which is valid for fifteen days and shall also give the person a notice of such person's right to file a petition for review to contest the license revocation.

2. The officer shall make a certified report under penalties of perjury for making a false statement to a public official. The report shall be forwarded to the director of revenue and shall include the following:

(1) That the officer has:

(a) Reasonable grounds to believe that the arrested person was driving a motor vehicle while in an intoxicated or drugged condition; or

(b) Reasonable grounds to believe that the person stopped, being under the age of twenty-one years, was driving a motor vehicle with a blood alcohol content of two-hundredths of one percent or more by weight; or

(c) Reasonable grounds to believe that the person stopped, being under the age of twenty-one years, was committing a violation of the traffic laws of the state, or political subdivision of the state, and such officer has reasonable grounds to believe, after making such stop, that the person had a blood alcohol content of two-hundredths of one percent or greater;

(2) That the person refused to submit to a chemical test;

(3) Whether the officer secured the license to operate a motor vehicle of the person;

(4) Whether the officer issued a fifteen-day temporary permit;

(5) Copies of the notice of revocation, the fifteen-day temporary permit and the notice of the right to file a petition for review, which notices and permit may be combined in one document; and

(6) Any license to operate a motor vehicle which the officer has taken into possession.

3. Upon receipt of the officer's report, the director shall revoke the license of the person refusing to take the test for a period of one year; or if the person is a nonresident, such person's operating permit or privilege shall be revoked for one year; or if the person is a resident without a license or permit to operate a motor vehicle in this state, an order shall be issued denying the person the issuance of a license or permit for a period of one year.

4. If a person's license has been revoked because of the person's refusal to submit to a chemical test, such person may petition for a hearing before a circuit division or associate division of the court in the county in which the arrest or stop occurred. The person may request such court to issue an order staying the revocation until such time as the petition for review can be heard. If the court, in its discretion, grants such stay, it shall enter the order upon a form prescribed by the director of revenue and shall send a copy of such order to the director. Such order shall serve as proof of the privilege to operate a motor vehicle in this state and the director shall maintain possession of the person's license to operate a motor vehicle until termination of any revocation pursuant to this section. Upon the person's request the clerk of the court shall notify the prosecuting attorney of the county and the prosecutor shall appear at the hearing on behalf of the director of revenue. At the hearing the court shall determine only:

(1) Whether or not the person was arrested or stopped;

(2) Whether or not the officer had:

(a) Reasonable grounds to believe that the person was driving a motor vehicle while in an intoxicated or drugged condition; or

(b) Reasonable grounds to believe that the person stopped, being under the age of twenty-one years, was driving a motor vehicle with a blood alcohol content of two-hundredths of one percent or more by weight; or

(c) Reasonable grounds to believe that the person stopped, being under the age of twenty-one years, was committing a violation of the traffic laws of the state, or political subdivision of the state, and such officer had reasonable grounds to believe, after making such stop, that the person had a blood alcohol content of two-hundredths of one percent or greater; and

(3) Whether or not the person refused to submit to the test.

5. If the court determines any issue not to be in the affirmative, the court shall order the director to reinstate the license or permit to drive.

6. Requests for review as provided in this section shall go to the head of the docket of the court wherein filed.

7. No person who has had a license to operate a motor vehicle suspended or revoked pursuant to the provisions of this section shall have that license reinstated until such person has participated in and successfully completed a substance abuse traffic offender program defined in section 577.001, or a program determined to be comparable by the department of mental health or the court. Assignment recommendations, based upon the needs assessment as described in subdivision (23) of section 302.010, shall be delivered in writing to the person with written notice that the person is entitled to have such assignment recommendations reviewed by the court if the person objects to the recommendations. The person may file a motion in the associate division of the circuit court of the county in which such assignment was given, on a printed form provided by the state courts administrator, to have the court hear and determine such motion pursuant to the provisions of chapter 517. The motion shall name the person or entity making the needs assessment as the respondent and a copy of the motion shall be served upon the respondent in any manner allowed by law. Upon hearing the motion, the court may modify or waive any assignment recommendation that the court determines to be unwarranted based upon a review of the needs assessment, the person's driving record, the circumstances surrounding the offense, and the likelihood of the person committing a like offense in the future, except that the court may modify but may not waive the assignment to an education or rehabilitation program of a person determined to be a prior or persistent offender as defined in section 577.023, or of a person determined to have operated a motor vehicle with fifteen-hundredths of one percent or more by weight in such person's blood. Compliance with the court determination of the motion shall satisfy the provisions of this section for the purpose of reinstating such person's license to operate a motor vehicle. The respondent's personal appearance at any hearing conducted pursuant to this subsection shall not be necessary unless directed by the court.

8. The fees for the substance abuse traffic offender program, or a portion thereof to be determined by the division of alcohol and drug abuse of the department of mental health, shall be paid by the person enrolled in the program. Any person who is enrolled in the program shall pay, in addition to any fee charged for the program, a supplemental fee to be determined by the department of mental health for the purposes of funding the substance abuse traffic offender program defined in section 302.010 and section 577.001. The administrator of the program shall remit to the division of alcohol and drug abuse of the department of mental health on or before the fifteenth day of each month the supplemental fee for all persons enrolled in the program, less two percent for administrative costs. Interest shall be charged on any unpaid balance of the supplemental fees due the division of alcohol and drug abuse pursuant to this section and shall accrue at a rate not to exceed the annual rates established pursuant to the provisions of section 32.065, plus three percentage points. The supplemental fees and any interest received by the department of mental health pursuant to this section shall be deposited in the mental health earnings fund which is created in section 630.053.

9. Any administrator who fails to remit to the division of alcohol and drug abuse of the department of mental health the supplemental fees and interest for all persons enrolled in the program pursuant to this section shall be subject to a penalty equal to the amount of interest accrued on the supplemental fees due the division pursuant to this section. If the supplemental fees, interest, and penalties are not remitted to the division of alcohol and drug abuse of the department of mental health within six months of the due date, the attorney general of the state of Missouri shall initiate appropriate action of the collection of said fees and interest accrued. The court shall assess attorney fees and court costs against any delinquent program.

10. Any person who has had a license to operate a motor vehicle revoked more than once for violation of the provisions of this section shall be required to file proof with the director of revenue that any motor vehicle operated by the person is equipped with a functioning, certified ignition interlock device as a required condition of license reinstatement. Such ignition interlock device shall further be required to be maintained on all motor vehicles operated by the person for a period of not less than six months immediately following the date of reinstatement. If the person fails to maintain such proof with the director as required by this section, the license shall be rerevoked and the person shall be guilty of a class A misdemeanor.

11. The revocation period of any person whose license and driving privilege has been revoked under this section and who has filed proof of financial responsibility with the department of revenue in accordance with chapter 303 and is otherwise eligible, shall be terminated by a notice from the director of revenue after one year from the effective date of the revocation. Unless proof of financial responsibility is filed with the department of revenue, the revocation shall remain in effect for a period of two years from its effective date. If the person fails to maintain proof of financial responsibility in accordance with chapter 303, the person's license and driving privilege shall be rerevoked and the person shall be guilty of a class A misdemeanor.

(L. 1982 S.B. 513, A.L. 1987 S.B. 230, A.L. 1991 S.B. 125 & 341, A.L. 1993 S.B. 167 merged with S.B. 180, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 1998 S.B. 634, A.L. 2001 H.B. 302 & 38, A.L. 2002 H.B. 2062, A.L. 2003 H.B. 600, A.L. 2005 H.B. 353 merged with H.B. 487, A.L. 2008 S.B. 930 & 947, A.L. 2010 H.B. 1695, et al.)

(2000) Section specifically provides that venue for petition for review of driver's license revocation for refusal to submit to chemical test is in circuit court in county in which the arrest or stop occurred and thus applies versus the more general provisions of section 302.311. *State ex rel. Director of Revenue v. Gaertner*, 32 S.W.3d 564 (Mo.banc).

(2000) Time limit for contacting an attorney begins to run for arrestee upon being advised of requirements of implied consent law. *Brown v. Director of Revenue*, 34 S.W.3d 166 (Mo.App.W.D.).

(2002) At trial de novo following administrative revocation of driver's license under implied consent law, licensee may not contest revocation solely on grounds that he was not driving the motor vehicle. *Hinnah v. Director of Revenue*, 77 S.W.3d 616 (Mo.banc).

(2004) Clause "none shall be given" applies only to authority of law enforcement officers to proceed with a warrantless test and does not restrict a court's power to issue a search warrant to obtain blood sample. *State v. Smith*, 134 S.W.3d 35 (Mo.App.E.D.).

(2004) In driver's license revocation review by trial court, issue of authority of the director of revenue to revoke license in absence of arresting officer's sworn report is not before the court. *Baker v. Director of Revenue*, 151 S.W.3d 144 (Mo.App.S.D.).

(2010) Twenty-minute waiting period begins running immediately after the officer has informed the driver of the implied consent law, regardless of whether the driver requested an attorney before or after the information was provided. *Norris v. Director of Revenue*, 304 S.W.3d 724 (Mo.banc).

Substance abuse traffic offender program, court may order participation in, when--professional assessment--supplemental fees, deposition--failure to remit, penalty.

577.049. 1. Upon a plea of guilty or a finding of guilty for an offense of violating the provisions of section 577.010 or 577.012 or violations of county or municipal ordinances involving alcohol- or drug-related traffic offenses, the court shall order the person to participate in and successfully complete a substance abuse traffic offender program defined in section 577.001.

2. The fees for the substance abuse traffic offender program, or a portion thereof, to be determined by the division of alcohol and drug abuse of the department of mental health, shall be paid by the person enrolling in the program. Any person who is enrolled in the program shall pay, in addition to any fee charged for the program, a supplemental fee to be determined by the department of mental health for the purposes of funding the substance abuse traffic offender program defined in section 302.010 and section 577.001. The administrator of the program shall remit to the division of alcohol and drug abuse of the department of mental health on or before the fifteenth day of each month the supplemental fees for all persons enrolled in the program, less two percent for administrative costs. Interest shall be charged on any unpaid balance of the supplemental fees due the division of alcohol and drug abuse pursuant to this section and shall accrue at a rate not to exceed the annual rates established pursuant to the provisions of section 32.065 plus three percentage points. The supplemental fees and any interest received by the department of mental health pursuant to this section shall be deposited in the mental health earnings fund which is created in section 630.053.

3. Any administrator who fails to remit to the division of alcohol and drug abuse of the department of mental health the supplemental fees and interest for all persons enrolled in the program pursuant to this section shall be subject to a penalty equal to the amount of interest accrued on the supplemental fees due the division pursuant to this section. If the supplemental fees, interest, and penalties are not remitted to the division of alcohol and drug abuse of the department of mental health within six months of the due date, the attorney general of the state of Missouri shall initiate appropriate action of the collection of said fees and interest accrued. The court shall assess attorney fees and court costs against any delinquent program.

(L. 1982 S.B. 513, A.L. 1993 S.B. 167, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2003 H.B. 600)

Effective 7-01-03

Missouri uniform law enforcement system records, information entered by highway patrol, when, made available, to whom--failure to furnish records to patrol, penalty-forms and procedure for filing records.

577.051. 1. A record of the disposition in any court proceeding involving a violation of any of the provisions of sections 577.005* to 577.023, or violation of county or municipal ordinances involving alcohol- or drug-related driving offenses shall be forwarded to the department of revenue, within seven days by the clerk of the court in which the proceeding was held. The records shall be forwarded by the department of revenue within fifteen days of receipt to the Missouri state highway patrol and shall be entered by the highway patrol in the Missouri uniform law enforcement system records. Dispositions that shall be reported are pleas of guilty, findings of guilty, suspended imposition of sentence, suspended execution of sentence, probation, conditional sentences, sentences of confinement, and any other such dispositions that may be required under state or federal regulations. The record forwarded by the clerk shall clearly show the court, the court case number, the name, address, and motor vehicle operator's or chauffeur's license number of the person who is the subject of the proceeding, the code or number identifying the particular arrest, and any court action or requirements pertaining thereto.

2. All records received by the Missouri state highway patrol or the department of revenue under the provisions of this section shall be entered in the Missouri uniform law enforcement system records and maintained by the Missouri state highway patrol. Records placed in the Missouri uniform law enforcement system under the provisions of this section shall be made available to any law enforcement officer in this state, any prosecuting or circuit attorney in this state, or to any judge of a municipal or state court upon request.

3. Any person required by this section to furnish records to the Missouri state highway patrol or department of revenue who willfully refuses to furnish such records is guilty of a class C misdemeanor.

4. Records required to be filed with the Missouri state highway patrol or the department of revenue under the provisions of sections 302.225 and 577.001 to 577.051 shall be filed beginning July 1, 1983, and no penalties for nonfiling of records shall be applied prior to July 1, 1983.

5. Forms and procedures for filing of records with the Missouri state highway patrol or department of revenue as required in this chapter shall be promulgated by the director of the department of public safety or department of revenue, as applicable, and approved by the Missouri supreme court.

6. All record-keeping procedures required under the provisions of sections 577.005* to 577.023 shall be in accordance with this section, chapter 610 to the contrary notwithstanding.

(L. 1982 S.B. 513, A.L. 1995 S.B. 3, A.L. 1997 S.B. 248, A.L. 2003 H.B. 613 merged with S.B. 468, A.L. 2007 H.B. 574)

*Section 577.005 was repealed by S.B. 276 § 1, 1983.

Rules, effective, when--rules invalid and void, when.

577.052. Any rule or portion of a rule promulgated pursuant to this act* shall become effective only as provided pursuant to chapter 536 including, but not limited to, section 536.028, if applicable, after August 28, 1997. All rulemaking authority delegated prior to August 28, 1997, is of no force and effect and repealed. The provisions of this section are nonseverable and if any of the powers vested with the general assembly pursuant to section 536.028, if applicable, to review, to delay the effective date, or to disapprove and annul a rule or portion of a rule are held unconstitutional or invalid, the purported grant of rulemaking authority and any rule so proposed and contained in the order of rulemaking shall be invalid and void.

(L. 1997 S.B. 248 § 1)

*"This act" (S.B. 248, 1997) contains numerous sections. Consult Disposition of Sections table for definitive listing.

Alcohol-related driving offenses, expunged from records, when--procedures, effect--limitations

577.054. 1. After a period of not less than ten years, an individual who has pleaded guilty or has been convicted for a first alcohol-related driving offense which is a misdemeanor or a county or city ordinance violation and which is not a conviction for driving a commercial motor vehicle while under the influence of alcohol and who since such date has not been convicted of any other alcohol-related driving offense may apply to the court in which he or she pled guilty or was sentenced for an order to expunge from all official records all recordations of his or her arrest, plea, trial or conviction. If the court determines, after hearing, that such person has not been convicted of any subsequent alcohol-related driving offense, has no other subsequent alcohol-related enforcement contacts as defined in section 302.525, and has no other alcohol-related driving charges or alcohol-related enforcement actions pending at the time of the hearing on the application, the court shall enter an order of expungement. Upon granting of the order of expungement, the records and files maintained in any administrative or court proceeding in an associate or circuit division of the circuit court under this section shall be confidential and only available to the parties or by order of the court for good cause shown. The effect of such order shall be to restore such person to the status he or she occupied prior to such arrest, plea or conviction and as if such event had never taken place. No person as to whom such order has been entered shall be held thereafter under any provision of any law to be guilty of perjury or otherwise giving a false statement by reason of his or her failure to recite or acknowledge such arrest, plea, trial, conviction or expungement in response to any inquiry made of him or her for any purpose whatsoever and no such inquiry shall be made for information relating to an expungement under this section. A person shall only be entitled to one expungement pursuant to this section. Nothing contained in this section shall prevent the director from maintaining such records as to ensure that an individual receives only one expungement pursuant to this section for the purpose of informing the proper authorities of the contents of any record maintained pursuant to this section.

2. The provisions of this section shall not apply to any individual who has been issued a commercial driver's license or is required to possess a commercial driver's license issued by this state or any other state.

(L. 1989 1st Ex. Sess. H.B. 3 § 2, A.L. 2004 S.B. 1233, et al., A.L. 2005 S.B. 422, A.L. 2010 H.B. 1695, et al.)

(2009) Section authorizes courts to expunge all records of a driver's administrative alcohol suspension and to make those records confidential. S.S. v. Mitchell, 289 S.W.3d 797 (Mo.App. E.D.).

Leaving the scene of a motor vehicle accident.

577.060. 1. A person commits the crime of leaving the scene of a motor vehicle accident when being the operator or driver of a vehicle on the highway or on any publicly or privately owned parking lot or parking facility generally open for use by the public and knowing that an injury has been caused to a person or damage has been caused to property, due to his culpability or to accident, he leaves the place of the injury, damage or accident without stopping and giving his name, residence, including city and street number, motor vehicle number and driver's license number, if any, to the injured party or to a police officer, or if no police officer is in the vicinity, then to the nearest police station or judicial officer.

2. For the purposes of this section, all peace officers shall have jurisdiction, when invited by an injured person, to enter the premises of any privately owned parking lot or parking facility for the purpose of investigating an accident and performing all necessary duties regarding such accident.

3. Leaving the scene of a motor vehicle accident is a class A misdemeanor, except that it shall be a class D felony if the accident resulted in:

- (1) Physical injury to another party; or
- (2) Property damage in excess of one thousand dollars; or
- (3) If the defendant has previously pled guilty to or been found guilty of a violation of this section.

(L. 1977 S.B. 60, A.L. 1983 H.B. 287, A.L. 1986 S.B. 450, A.L. 1989 1st Ex. Sess. H.B. 3)

Effective 7-27-89

Definitions.

577.201. As used in this section and section 577.203, "flight crew member" shall include the pilot in command, copilots, flight engineers and flight navigators.

(L. 1993 H.B. 562 § 8 subsec. 2)

Unlawful for flight crew members to be under influence of alcohol or drugs while operating or acting as flight crew, penalties.

577.203. 1. It is unlawful for any person to operate, or act as a flight crew member of, any aircraft in this state:

- (1) While under the influence of alcohol or a controlled substance, or any combination thereof;
- (2) With four one-hundredths of one percent or more by weight of alcohol in his blood; or
- (3) Within eight hours after the consumption of any alcoholic beverage.

2. Any person found guilty of violating this section and section 577.201 shall have committed a class C misdemeanor.

3. Any person found guilty a second or subsequent time of violating this section and section 577.201 shall have committed a class A misdemeanor.

(L. 1993 H.B. 562 § 8 subsecs. 1, 3, 4)

Flight crew members, implied consent to chemical tests--implied consent limited to two tests for same incident.

577.206. 1. Any person who operates, or acts as a flight crew member of, any aircraft in this state is deemed to have given his or her consent to chemical testing of his or her blood, breath, or urine for the purpose of determining the alcohol or drug content of the blood. The consent shall be deemed only if the person is detained for any offense allegedly committed in violation of sections 577.201 and 577.203 or if any officer requests chemical testing as part of an investigation of a suspected violation of state or local law. The test shall be administered at the direction of the law enforcement officer.

2. The implied consent to submit to the chemical tests shall be limited to not more than two such tests arising from the same incident.

(L. 1993 H.B. 562 § 9 subsecs. 1, 2)

Valid test requirements--test results to be furnished to person tested on request--no liability for person administering test, exceptions.

577.208. 1. Chemical tests of the person's breath, blood, or urine to be considered valid shall be performed according to methods and devices approved by the state department of health and senior services and shall be performed by licensed medical personnel or by a person possessing a valid permit issued by the state department of health and senior services for this purpose. A blood test shall not be performed if the medical personnel, in good faith medical judgment, believe such procedure would endanger the health of the person in custody.

2. Upon request of the person tested, full information concerning the test shall be made available to him.

3. No person administering a chemical test under this section and sections 577.206, 577.211 and 577.214, or any other person, firm or corporation with whom he is associated, shall be civilly liable for damages to the person tested except for negligence or by willful or wanton act or omission.

(L. 1993 H.B. 562 § 9 subsecs. 3, 4, 5)

Dead or unconscious persons, chemical test may be administered.

577.211. Any person who is dead, unconscious, or otherwise incapable of refusing to take a test shall be deemed to not have withdrawn the consent, and the chemical test may be administered.

(L. 1993 H.B. 562 § 9 subsec. 6)

Chemical tests admissible as evidence.

577.214. The provisions of section 491.060 shall not prevent the admissibility of evidence of any chemical analysis performed under this section and sections 577.206, 577.208 and 577.211. In any criminal prosecution for the violation of sections 577.201 and 577.203, the results of any properly performed chemical test of the defendant's blood, breath or urine shall be admissible as evidence.

(L. 1993 H.B. 562 § 9 subsec. 7)

Refusal to submit to test, effect, penalties.

577.217. If a person refuses upon the request of the officer to submit to a chemical test, then no test shall be given. Any refusal to submit to a test shall be an infraction which may be punished by a fine of up to one thousand dollars. The officer shall inform the person that his or her failure to submit to the test may result in a fine and administrative penalties by the Federal Aviation Administration.

(L. 1993 H.B. 562 § 10 subsec. 1)

Positive test results, test refusals and convictions of violations to be reported to the Federal Aviation Administration.

577.221. All positive test results and test refusals shall be reported by law enforcement agencies to the Federal Aviation Administration. If a person pleads guilty to or is found guilty of a violation of sections 577.201 and 577.203, a report of the conviction shall be forwarded by the court in which the conviction occurred to the Federal Aviation Administration.

(L. 1993 H.B. 562 § 10 subsec. 2)

Suspension or revocation of driving privileges, persons under twenty-one years of age--violation of certain laws--surrender of licenses--court to forward to director of revenue--period of suspension.

577.500. 1. A court of competent jurisdiction shall, upon a plea of guilty, conviction or finding of guilt, or, if the court is a juvenile court, upon a finding of fact that the offense was committed by a juvenile, enter an order suspending or revoking the driving privileges of any person determined to have committed one of the following offenses and who, at the time said offense was committed, was under twenty-one years of age:

- (1) Any alcohol-related traffic offense in violation of state law or a county or, beginning July 1, 1992, municipal ordinance, where the defendant was represented by or waived the right to an attorney in writing;
- (2) Any offense in violation of state law or, beginning July 1, 1992, a county or municipal ordinance, where the defendant was represented by or waived the right to an attorney in writing, involving the possession or use of alcohol, committed while operating a motor vehicle;
- (3) Any offense involving the possession or use of a controlled substance as defined in chapter 195 in violation of the state law or, beginning July 1, 1992, a county or municipal ordinance, where the defendant was represented by or waived the right to an attorney in writing;
- (4) Any offense involving the alteration, modification or misrepresentation of a license to operate a motor vehicle in violation of section 311.328;
- (5) Any offense in violation of state law or, beginning July 1, 1992, a county or municipal ordinance, where the defendant was represented by or waived the right to an attorney in writing, involving the possession or use of alcohol for a second time; except that a determination of guilt or its equivalent shall have been made for the first offense and both offenses shall have been committed by the person when the person was under eighteen years of age.

2. A court of competent jurisdiction shall, upon a plea of guilty or nolo contendere, conviction or finding of guilt, or, if the court is a juvenile court, upon a finding of fact that the offense was committed by a juvenile, enter an order suspending or revoking the driving privileges of any person determined to have committed a crime or violation of section 311.325 and who, at the time said crime or violation was committed, was more than fifteen years of age and under twenty-one years of age.

3. The court shall require the surrender to it of any license to operate a motor vehicle, temporary instruction permit, intermediate driver's license or any other driving privilege then held by any person against whom a court has entered an order suspending or revoking driving privileges under subsections 1 and 2 of this section.

4. The court, if other than a juvenile court, shall forward to the director of revenue the order of suspension or revocation of driving privileges and any licenses, temporary instruction permits, intermediate driver's licenses, or any other driving privilege acquired under subsection 3 of this section.

5. (1) The court, if a juvenile court, shall forward to the director of revenue the order of suspension or revocation of driving privileges and any licenses, temporary instruction permits, intermediate driver's licenses, or any other driving privilege acquired under subsection 3 of this section for any person sixteen years of age or older, the provision of chapter 211 to the contrary notwithstanding.

(2) The court, if a juvenile court, shall hold the order of suspension or revocation of driving privileges for any person less than sixteen years of age until thirty days before the person's sixteenth birthday, at which time the juvenile court shall forward to the director of revenue the order of suspension or revocation of driving privileges, the provision of chapter 211 to the contrary notwithstanding.

6. The period of suspension for a first offense under subsection 1 of this section shall be ninety days. Any second or subsequent offense under subsection 1 of this section shall result in revocation of the offender's driving privileges for one year. The period of suspension for a first offense under subsection 2 of this section shall be thirty days. The period of suspension for a second offense under subsection 2 of this section shall be ninety days. Any third or subsequent offense under subsection 2 of this section shall result in revocation of the offender's driving privileges for one year.

(L. 1987 S.B. 230 § 1, A.L. 1991 S.B. 125 & 341, A.L. 2005 H.B. 353 merged with S.B. 37, et al. merged with S.B. 402)

Revocation of driving privileges, persons over twenty-one years of age--possession or use of drug in motor vehicle--surrender of licenses--court shall forward order to department of revenue.

577.505. A court of competent jurisdiction shall enter an order revoking the driving privileges of any person determined to have violated any state, county, or municipal law involving the possession or use of a controlled substance, as defined in chapter 195, while operating a motor vehicle and who, at the time said offense was committed, was twenty-one years of age or older when the person pleads guilty, or is convicted or found guilty of such offense by the court. The court shall require the surrender to it of all operator's and chauffeur's licenses then held by such person. The court shall forward to the director of revenue the order of revocation of driving privileges and any licenses surrendered.

(L. 1987 S.B. 230 § 2)

Effective 12-1-87

Director of revenue to suspend or revoke license, when--hardship driving privileges may be granted, procedure--temporary instruction permits allowed, when.

577.510. 1. Upon receipt of a court order suspending or revoking the driving privileges of a person pursuant to sections 577.500 and 577.505, the director of revenue shall suspend the driving privileges for ninety days or revoke the driving privileges of such person for a period of one year, provided however, that in the case of a person who at the time of the offense was less than sixteen years of age, the period of suspension or revocation shall commence on that person's sixteenth birthday. The provisions of chapter 302 to the contrary notwithstanding, the suspension or revocation shall be imposed without further hearing. Any person whose driving privileges have been suspended or revoked pursuant to sections 577.500 and 577.505 may petition the circuit court for a hardship driving privilege and said application shall be determined and administered in the same manner as allowed in section 302.309.

2. The director of revenue shall permit the issuance of a temporary instruction permit in the same manner as allowed in subsection 2 of section 302.130 to persons fifteen years of age and under seventeen years of age denied driving privileges by court order pursuant to section 577.500. This exception only applies to instruction permits that entitle a person to operate a motor vehicle on the highways in the presence of an authorized instructor.

(L. 1987 S.B. 230 § 3, A.L. 1991 S.B. 125 & 341)

Effective 6-20-91

Failure to surrender licenses, certain law enforcement officer may seize.

577.515. If a person shall neglect or refuse to surrender all operator's and chauffeur's licenses, as provided for in sections 577.500 and 577.505, the director shall direct the state highway patrol or any peace or police officer to secure possession thereof and return such license or licenses to the director.

(L. 1987 S.B. 230 § 4)

Effective 12-1-87

License reinstatement, substance abuse traffic offender program--professional assessment--supplemental fee, disposition, failure to remit, penalty.

577.520. 1. No person who has had his license suspended or revoked under the provisions of sections 577.500 and 577.505 shall have that license reinstated until he has paid a twenty-dollar reinstatement fee and has successfully completed a substance abuse traffic offender program as defined in section 577.001.

2. The fees for the substance abuse traffic offender program, or a portion thereof to be determined by the division of alcohol and drug abuse of the department of mental health, shall be paid by the person enrolled in the program. Any person who is enrolled in the program shall pay, in addition to any fee charged for the program, a supplemental fee to be determined by the department of mental health for the purposes of funding the substance abuse traffic offender program defined in section 302.010 and section 577.001, or a program determined to be comparable by the department of mental health. The administrator of the program shall remit to the division of alcohol and drug abuse of the department of mental health on or before the fifteenth of each month the supplemental fees for all persons enrolled in the program, less two percent for administrative costs. Interest shall be charged on any unpaid balance of the supplemental fees due the division of alcohol and drug abuse pursuant to this section and shall accrue at a rate not to exceed the annual rates established pursuant to the provisions of section 32.065 plus three percentage points. The supplemental fees and any interest received by the department of mental health pursuant to this section shall be deposited in the mental health earnings fund which is created in section 630.053.

3. Any administrator who fails to remit to the division of alcohol and drug abuse of the department of mental health the supplemental fees and interest for all persons enrolled in the program pursuant to this section shall be subject to a penalty equal to the amount of interest accrued on the supplemental fees due the division pursuant to this section. If the supplemental fees, interest, and penalties are not remitted to the division of alcohol and drug abuse of the department of mental health within six months of the due date, the attorney general of the state of Missouri shall initiate appropriate action of the collection of said fees and interest accrued. The court shall assess attorney fees and court costs against any delinquent program.

(L. 1987 S.B. 230 § 5, A.L. 1991 S.B. 125 & 341, A.L. 1993 S.B. 167, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722, A.L. 2003 H.B. 600)

Effective 7-01-03

Completion of substance abuse traffic offender program, persons under twenty-one years of age, required, when, standards by department of mental health.

577.525. Any court which has jurisdiction over violations of state, county or municipal laws shall enter an order, in addition to other orders authorized by law, requiring the completion of a substance abuse traffic offender program as defined in section 577.001, as a part of the judgment entered in the case, for any person determined to have violated a state, county, or municipal law involving the possession or use of alcohol and who at the time of said offense was under twenty-one years of age when the court, if a juvenile court, finds that the offense was committed by such person or, if a city, county, or state court, when the person pleads guilty, or is found guilty of such offense by the court.

(L. 1987 S.B. 230 § 6, A.L. 1991 S.B. 125 & 341, A.L. 1996 H.B. 1169 & 1271 merged with S.B. 722)

Department of revenue--rules and regulations.

577.530. The director of revenue shall have authority to make such rules and regulations as he deems necessary for the administration of sections 577.500 to 577.525. No rule or portion of a rule promulgated under the authority of sections 577.500 to 577.530 shall become effective unless it has been promulgated pursuant to the provisions of section 536.024.

(L. 1987 S.B. 230 § 7, A.L. 1993 S.B. 52, A.L. 1995 S.B. 3)



Missouri Department of Health and Senior Services

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Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 2-B

SELECTED MISSOURI DWI CASE LAW

In this section, we will review some of the case law pertinent to the following issues:

- Definition of “driving” or “operating” a vehicle as applied to DWI cases.
- Definition of “motor vehicle” as applied to DWI cases.
- Definition of “highway” as applied to DWI cases.
- Evidence of intoxication
- Missouri’s Implied Consent Law
- Chemical tests for intoxication, including:
 - Preliminary breath (PBT) tests
 - Blood tests
 - Breath tests
- The “20 minute” rule (Attorney Contact)
- Chemical Test Refusal

This review is not intended to be all encompassing; rather, always check with an attorney regarding the status of new decisions and their importance on these issues.

The General Counsel’s Office of the Department of Revenue provides assistance to law enforcement officers and prosecutors in all areas where driver-licensing issues arise. Their telephone number is (573) 751-2580 and the fax number is (572) 751-815; their address is: General Counsel’s Office, PO Box 475, Jefferson City, MO 65105-0475.

Driving or Operating a Vehicle

Operation of a motor vehicle does not require that the vehicle be in motion, only that the subject turns on the vehicle or otherwise engages the machinery. An individual who is asleep behind the wheel of a vehicle with the engine running may be considered to be operating the vehicle.¹⁻³ The “bright line” test for operation is to cause a vehicle’s motor to function. Turning the ignition off does not constitute “operation” since it causes the car not to function.³

Circumstantial evidence of driving can be sufficient in certain cases, such as:

- Engine running and no one else seen in or around vehicle,⁴⁻⁵
- Subject passed out behind the wheel with engine running in median of road,⁶ or
- Subject found unconscious next to wrecked vehicle registered in their name.⁷⁻⁸

Subject admissions are also usually sufficient to establish driving⁹⁻¹², and to establish probable cause to arrest for DWI¹³, although this is not always enough evidence to establish *corpus delicti*.¹⁴⁻¹⁵ This is not an issue in civil DOR cases, however.¹⁶

Motor Vehicle

RSMo 577 does not define motor vehicle directly, although definitions for “motor vehicle” do exist in other statutes such as RSMo 301.010 and 302.010. However, it has routinely been found that the definitions in these chapters are not to be necessarily applied to DWI as defined in RSMo 577.010, and as such the definition of motor vehicle for the purpose of DWI has been construed to include not only cars, vans, and trucks, but golf carts¹⁷, ATVs¹⁸, motorized bicycles¹⁹, and farm tractors²⁰.

Highway

RSMo 302.010 defines “highway” as follows:

(6) "Highway", any public thoroughfare for vehicles, including state roads, county roads and public streets, avenues, boulevards, parkways, or alleys in any municipality.

It has been consistently held that it is not necessary to prove that a vehicle was operated on a public road or highway²¹⁻²³. Neither RSMo 577.010 or 577.012 mention anything about public highways, the only relevant statute that directly references “highway” is RSMo 302.505.1 (administrative license revocation). As such, subjects can be stopped and arrested before they drive onto a public roadway.

However, in a recent case combining both off-road driving and a non-standard vehicle, the court determined that since the vehicle was not designed primarily for use on highways, nor was it used on a highway, RSMo 302.505.1 did not cover the infraction²⁴.

Evidence of Intoxication

While it is commonly thought that being “intoxicated” means the subject is falling down, sloppy drunk, this is incorrect. Any intoxication that impairs the ability of a person to operate an automobile is sufficient to sustain a conviction under the statute in question.²⁵⁻²⁶

Evidence necessary to prove that a subject’s ability to operate a vehicle is “in any manner” impaired can be either direct or circumstantial. Moreover, there is no requirement that the officer observe the defendant driving the motor vehicle unreasonably or in an erratic manner.

The following observations are valid evidence of intoxication:

- Poor driving, erratic driving, unusual driving
- Odor of alcoholic beverages on or about subject
- Watery, bloodshot eyes
- Staggering
- Slurred speech
- Incoherent speech
- The general conduct and demeanor of subject
- Admissions of consumption of alcohol or use of other drugs
- Poor performance on standardized field sobriety tests (see NHTSA *DWI Detection and Standardized Field Sobriety Testing* manual for more information) or refusal to submit to SFST’s
- Indications of recent drug use or presence of drug paraphernalia
- Preliminary breath test or refusal to submit to a test
- Evidential breath test or refusal to submit to a test

Note that all of the observations listed above are valid evidence of intoxication. **It is not necessary to have a chemical test result to prove intoxication beyond a reasonable doubt.** Missouri courts have consistently ruled that the crime of DWI (577.010) does not require a blood/breath alcohol test in order to satisfy the elements, or that if a blood/breath alcohol test was performed that it must be above the per se concentration level to support conviction.²⁷⁻³⁰ **It also does not require the proper (or improper) administration of standardized field sobriety tests.**³¹⁻³⁶ All observations add to the preponderance of the evidence, and it is only upon the totality of circumstances surrounding a stop that an arrest should be made.

In addition to RSMo 577.010, Missouri also has RSMo 577.012, driving with an excess alcohol concentration. This is commonly referred to as a “BAC” charge. This section is also referred to as a per se law, since it is designed to make it a violation to drive a motor vehicle with a particular alcohol concentration level (currently .08% for adults, .02% for drivers under 21).

In a BAC case, the prosecution need prove only that the subject drove a vehicle with an alcohol concentration at or above the prohibited level. No evidence is needed under 577.012 to show that at the time the defendant was actually impaired.

Missouri's Implied Consent Law

RSMo 577.020 is Missouri's Implied Consent law.

577.020. 1. Any person who operates a motor vehicle upon the public highways of this state shall be deemed to have given consent to, subject to the provisions of sections 577.019 to 577.041, a chemical test or tests of the person's breath, blood, saliva or urine for the purpose of determining the alcohol or drug content of the person's blood pursuant to the following circumstances...

That is, the subject is deemed to have given their consent for testing unless they revoke that consent. This is further supported by RSMo 577.033, which states:

577.033. Any person who is dead, unconscious or who is otherwise in a condition rendering him incapable of refusing to take a test as provided in sections 577.020 to 577.041 shall be deemed not to have withdrawn the consent provided by section 577.020 and the test or tests may be administered.

Note that RSMo 577.020.2 states that chemical testing “*shall be limited to not more than two such tests*”. This has been interpreted to mean two separate types of statutory tests as allowed within DHSS regulations (e.g., a blood test and a breath test). Multiple attempts to secure a breath test, or multiple breath or blood tests performed on a subject each count only as a single test. While it may be more difficult to deem a subject a refusal if they have given at least one valid sample of a particular type, a subject can be required to do (for example) a breath test and then a blood test. Refusal of either test, even if they willingly gave the other test, is still deemed a refusal.³⁷⁻⁴¹

When law enforcement requests a driver to submit to a chemical test, RSMo 577.041 specifically requires that the officer advise the subject “*the reasons of the officer for requesting the person to submit to a test and also shall inform the person that evidence of refusal to take the test may be used against such person and that the person's license shall be immediately revoked upon refusal to take the test.*”

Be sure to use the most current version of the Alcohol Influence Report (AIR), so that the Implied Consent Warning being read to a subject is the most current version being applied by law. If the Implied Consent warning is not given correctly or before a chemical test is taken, then it can be grounds for the dismissal of DWI charges, especially on refusals.⁴²⁻⁴³

Chemical Test Evidence

The chemical test can be the most important piece of evidence in a DWI case. At trial, the State may rely on the chemical test exclusively. Jurors tend to give the chemical test great weight because of its scientific nature. While a chemical test for intoxication is not necessary to establish impairment, RSMo 577.037 states that “*0.080 or more by weight of alcohol in the person’s blood ...shall be **prima facie** evidence that the person was intoxicated at the time the specimen was taken.*”

There is little question that a chemical test can provide the most reliable evidence of intoxication. The administrative license case will fail without a test result showing the subject’s BAC exceeded the legal limit.

For the chemical test to be admissible, however, the State must comply with statutes and Department of Health rules regarding the administration and performance of the test. For a listing of all of the specific rules governing how testing is performed in the state of Missouri, see 19 CSR 25-30, Determination of Blood Alcohol by Blood, Breath, Saliva and Urine Analysis; and Determination for the Presence of Drugs in Blood and Urine. Circuit courts must take judicial notice of the Department of Health and Senior Services rules⁴⁴, so compliance is absolutely necessary for the admittance of chemical test results.

If a chemical test is admitted into evidence and the result indicates intoxication, the defendant will have an uphill battle refuting such evidence. However, the fact that the State has evidence in the form of a chemical test does not limit the introduction of other competent evidence showing whether the defendant was driving under the influence of alcohol or drugs. Always record all signs and symptoms of intoxication carefully!

Preliminary Breath Alcohol Tests

According to RSMo 577.021,

Any state, county or municipal law enforcement officer who has the power of arrest for violations of section 577.010 or 577.012 ... may, prior to arrest, administer a chemical test to any person suspected of operating a motor vehicle in violation of section 577.010 or 577.012.

This is known as Missouri's Preliminary Breath Test (PBT) law. It is not necessary to possess a Type II or Type III permit to operate a PBT. PBT results "*shall be admissible as evidence of probable cause to arrest and as exculpatory evidence, but shall not be admissible as evidence of blood alcohol content.*"

Preliminary breath tests are not considered a "test" as defined in 577.020, so the use of a PBT does not affect an officer's ability to obtain two more types of tests on a subject.

Note: It is not wise to use PBT results as the sole indication of impairment, and any attempt to do so can result in insufficient grounds for arrest. Always record all evidence of intoxication.

While PBT instruments are not covered within the rules of the Department of Health and Senior Services, proper maintenance and service of portable breath testing equipment is heavily encouraged. While the specific numerical results may not be introduced into court, officer testimony as to 'how the results of this test led to his arrest of a subject' behoove law enforcement to ensure that they have some understanding as to the operational principles at work in their field instrumentation. Also, ensuring that PBT's are serviced and that their accuracy is checked on some sort of regular schedule should give officers a reasonable degree of certainty in the results obtained.

Blood Tests for Impairing Substances

It is often the case that, due to specific circumstances, a blood alcohol sample is preferable to a breath alcohol sample. This is especially the case with subjects that have been involved in motor vehicle accidents and as such will not necessarily be available for transport to the police station.

If a blood sample is drawn, it must be drawn by (RSMo 577.029) “*licensed physician, registered nurse, or trained medical technician at the place of his employment*”. The qualifications for the blood drawer must be shown⁴⁵, and they must take the blood sample in strict compliance with 577.029.⁴⁶

Note: The “place of employment” has been ruled to include blood drawn inside the ambulance district at an accident scene.⁴⁷

However, Implied Consent applies to blood draws the same as breath samples, and if a subject refuses to submit to a blood test then “none shall be given”. Although the United States Supreme Court case *Schmerber v. California*⁴⁸ is the law of the land in many places, due to the wording of the RSMo 577.020, it does not appear to be the law in Missouri.⁴⁹

This language only prevents law enforcement from directing that a test be given; it does not prevent law enforcement from obtaining a warrant to acquire a sample of a subject’s blood.⁵⁰

There are other ways to obtain blood samples on subjects, especially those that have been involved in serious accidents and have been taken (or in route) to a hospital. Hospital blood draws and/or the results of these blood draws may be seized if a subpoena is obtained. It is advisable to act quickly in these manners, because hospitals do not regularly store blood samples for an extended period of time. If actual blood samples can be obtained and sent to a crime laboratory, this is preferable to simply acquiring the test results from the hospital.

Remember that a driver who is dead, unconscious, or otherwise in a condition rendering them incapable of refusing a test, is deemed to have consented to testing and the test can be administered without a warrant.

Breath Alcohol Tests

As a general rule, the State must prove that a breath alcohol test was⁵¹:

- Performed by an officer with a valid Type II or Type III permit for the instrument used.
- That the instrument used is approved by the Department of Health and Senior Services (DHSS) (see 19 CSR 25-30.050, Approved Breath Analyzers).
- That the test was administered according to 19 CSR 25-30.060, Operating Procedures for Breath Analyzers (Using the correct operational checklist).
- That a valid maintenance report had been performed on the instrument used within the 35 days prior to the evidential breath test being performed.

Although there is case law stating that “substantial compliance” with DHSS Rules and Regulations may be sufficient⁵²⁻⁵³, the only way to ensure that your test results will be admitted in a case is if total compliance with the above-mentioned items is observed.

When performing an evidential breath alcohol test, always use the correct operational checklist, always fill it out in its entirety according to what occurred, and always make sure that a valid maintenance was performed within the last 35 days!

The above-listed elements must be present any time a subject attempts to blow into breath alcohol instrument. However, if an officer is printing a refusal ticket with no attempt by the subject to give an adequate breath sample, the officer does not need to show they had a valid permit⁵⁴⁻⁵⁵, gave a 15 minute observation period⁵⁶, or that a maintenance had been performed within the last 35 days⁵⁷.

The 15-minute observation period is one of the most crucial elements to the proper performance of an evidential breath test⁵⁸. Subjects must be observed for at least 15 minutes prior to performing a breath test, and they cannot smoke, vomit, or have any “oral intake” during this time period.

While the courts have made it evident that the observation period can be performed on a subject while they are in transit⁵⁹⁻⁶⁰, it is recommended that the observation period is performed after a subject arrives at the police station at which the testing will take place, and that the time at which the observation period was begun is carefully documented on the AIR. If the observation is completed at the station with the subject in near and direct proximity during the entire 15 minutes, questions concerning lapses in the officer’s presence become moot, and arguments that have been used (with some success⁵⁸) concerning subjects doing something proscribed should disappear. If an observation period must be restarted for any reason, always document that it was started again, and at what time, and why.

20-Minute Rule (Attorney Contact)

The Missouri Supreme Court has stated that the Miranda case does not apply to testing of a DWI subject⁶⁶, and that subjects do not have the right to have an attorney present when the test is administered, although subjects must be allowed to consult with their attorney if they are present.⁶⁷ Instead, RSMo 577.041.1 states:

If a person when requested to submit to any test allowed pursuant to section 577.020 requests to speak to an attorney, the person shall be granted twenty minutes in which to attempt to contact an attorney. If upon the completion of the twenty-minute period the person continues to refuse to submit to any test, it shall be deemed a refusal.

The 20 minutes begin after a subject has been read the Implied Consent warning and has been asked to take a test. No time allowed contacting an attorney prior to reading Implied Consent counts against the 20 minutes⁶⁸⁻⁷⁰.

The officer does not have to advise a subject of the 20-minute rule.⁷¹ The right to contact counsel is only triggered by the specific request to speak with a lawyer.⁷²⁻⁷⁴ Stating, “I would like to make a phone call”, is not an invocation of the 20-minute rule. However, it is in an officer’s best interest to construe a request to contact in favor of the subject.

Even if a subject has invoked the right to contact counsel, the officer does not have to wait the full 20 minutes if the subject has otherwise abandoned their attempt to contact counsel. If, for example, a subject:

- Talks on the phone to his attorney, hangs up, and refuses to take the test⁷⁵⁻⁷⁶,
- Stops making attempts to contact an attorney⁷⁷, or
- Refuses to use the phone to contact an attorney⁷⁸,

Then the attempt to contact counsel can be deemed to have been abandoned, regardless whether a few 20 minutes has passed since invocation of the statute.

However, the burden is on the State to prove that the subject affirmatively abandoned the attempts to contact counsel before the 20 minutes expired. If the evidence indicates that the subject may have still wished to make further attempts, a subsequent refusal will be deemed invalid if the officer did not allow a full 20 minutes.⁷⁹⁻⁸¹

Note: The sequence of events needs to be clear and clearly documented on the Alcohol Influence Report. If a subject abandoned attempts, state precisely how that was determined (e.g., pushed phone away). If you asked the subject if they would like to make any further attempts, record that in the AIR as well as their response.

After having contacted counsel or abandoned attempts to contact counsel, subjects must be offered the opportunity to take the test.⁸²

The failure to afford a subject an opportunity to consult with counsel in order to decide whether to submit to the test(s) will result in a subsequent refusal being invalid.⁸³

Chemical Test Refusal

The consent to take the test is implied within statute 577.020; therefore, any volitional failure to act in accordance with what is necessary to perform a test is a refusal¹. For example, this can mean a subject is refusing if they:

- Give conditional consent. “I’ll take a blood test, not breath test”^{2,3}, or “I’ll take the test if I can go to the bathroom first”^{4,5}.
- Delay testing for an unreasonable length of time, such as by continuously arguing with officer, repeatedly asking for more trips to bathroom/water fountain, etc^{6,7}.
- Fails to provide an adequate sample, such as by huffing and puffing into the mouthpiece, blowing out the side of their mouth rather than through the mouthpiece, etc.⁸⁻¹²
- Say they do not want to take the test, but would if the officer wanted him to.¹³
- Say “I refuse”, “go to hell”, “blow me”, etc., or remain silent.

However, certain conduct may not be deemed to constitute a refusal. For example,

- Smoking prior to the test was not deemed to constitute a refusal where the subject was not advised that it would interfere with the test or that it would be considered a refusal if he persisted with his smoking¹⁴.
- Refusing to agree to pay the hospital for a blood test does not constitute a refusal¹⁵.
- Refusing to sign the hospital’s release form does not constitute a refusal of test¹⁶.

The basic rationale behind these holdings is that the subject is merely required to comply with the requirements of the Implied Consent Law, not any extra requirements that someone may seek to add to the test.

Subjects cannot “cure” a refusal by subsequently agreeing to take test¹⁷⁻²⁰. If a subject has been deemed a refusal, then the officer is without authority to conduct a test. However, if the subject refuses, then voluntarily offers to take the test and officer administers it, the subject is not deemed to have refused²¹.

Blood can be drawn pursuant to a warrant, even if a subject has otherwise refused to submit to a chemical test²².

Some officers print a Refusal ticket when a subject refuses to take a breath test. This is not required. However, if you are going to print a refusal ticket, ensure that when the instrument checklist is filled out, you do not check the box stating you took the subject’s breath sample!

Referenced Case Law

Driving of Operating a Vehicle

1. *State v. Wiles*, 26 S.W. 3d 436 (Mo.App.S.D. 2000)
2. *State v. Mitchell*, 77 S.W. 3d 637 (Mo.App.W.D. 2002)
3. *Cox v. Director of Revenue*, 98 S.W. 3d 548 (Mo.banc 2003)
4. *Baptist v. Director of Revenue*, 971 S.W. 2d 366 (Mo.App.E.D. 1998)
5. *Delzell v. Director of Revenue*, 983 S.W. 2d 633 (Mo.App.S.D. 1999)
6. *Campbell v. Director of Revenue*, 172 S.W. 3d 476 (Mo.App.E.D. 2005)
7. *Cox v. Director of Revenue*, 37 S.W. 3d 304 (Mo.App.S.D. 2000)
8. *Heskett v. Director of Revenue*, 62 S.W. 3d 103 (Mo.App.S.D. 2001)
9. *Dickerson v. Director of Revenue*, 15 S.W.3d 56 (Mo. App. W.D. 2000)
10. *McFall v. Director of Revenue*, 162 S.W. 3d 526 (Mo.App.S.D. 2005)
11. *Weiland v. Director of Revenue*, 73 S.W.3d 60 (Mo. App. W.D. 2002)
12. *Marsey v. Director of Revenue*, 19 S.W. 3d 176 (Mo.App.E.D. 2000)
13. *Misener v. Director of Revenue*, 13 S.W.3d 666 (Mo. App. E.D. 2000)
14. *State v. Friesen*, 725 S.W.2d 638 (Mo. App. W.D. 1987)
15. *Kansas City v. Verstraete*, 481 S.W.2d 615 (Mo. App. W.D. 1972)
16. *Shumaker v. Director of Revenue*, 171 S.W. 3d 135 (Mo.App.W.D. 2005)

Motor Vehicle

17. *Covert v. Director of Revenue*, 151 S.W. 3d 70 (Mo.App.E.D. 2004)
18. *State v. Bailey*, 140 S.W. 3d 260 (Mo.App.S.D. 2004)
19. *State v. Laplante*, 148 S.W.3d 347 (Mo. App. S.D. 2004)
20. *State v. Powell*, 306 S.W.2d 531, 533-34 (Mo. 1957)

Highway

21. *Bertram v. Director of Revenue*, 930 S.W.2d 7 (Mo. App. W.D. 1996)
22. *Peeler v. Director of Revenue*, 934 S.W.2d 329 (Mo. App. E.D. 1996)
23. *State v. Hill*, 812 S.W.2d 204 (Mo. App. W.D. 1991)
24. *Mitchell v. Director of Revenue*, ___ S.W.3d ___ (Mo. App. S.D. 2008)

Evidence of Intoxication

25. *State v. Raines*, 62 S.W.2d 727, 729 (Mo. 1933)
26. *Collins v. Director of Revenue*, 691 S.W.2d 246 (Mo. banc 1985)
27. *State v. Buckler*, 988 S.W.2d 565 (Mo. App. W.D. 1999)
28. *State v. Adams*, 163 S.W.3d 35 (Mo. App. S.D. 2005)
29. *State v. Teaster*, 962 S.W.2d 429 (Mo. App. S.D. 1998)
30. *State v. Vanosdol*, 974 S.W.2d 650 (Mo. App. W.D. 1998)
31. *Chancellor v. Director of Revenue*, 984 S.W.2d 857 (Mo. App. W.D. 1998)
32. *Knipp v. Director of Revenue*, 984 S.W.2d 147 (Mo. App. W.D. 1998)
33. *Terry v. Director of Revenue*, 14 S.W.3d 722 (Mo. App. W.D. 2000)
34. *Marsey v. Director of Revenue*, 19 S.W.3d 176 (Mo. App. E.D. 2000)
35. *Hunt v. Director of Revenue*, 10 S.W.3d 144 (Mo. App. E.D. 1999)
36. *Brown v. Director of Revenue*, 85 S.W.3d 1 (Mo.banc 2002)

Missouri's Implied Consent Law

37. *Borgen v. Director of Revenue*, 877 S.W.2d 172 (Mo. App. W.D. 1994)
38. *Snow v. Director of Revenue*, 935 S.W.2d 383 (Mo. App. S.D. 1996)
39. *Smock v. Director of Revenue*, 128 S.W.3d 643 (Mo. App. W.S. 2004)
40. *Tarlton v. Director of Revenue*, 201 S.W.3d 564 (Mo. App. E.D. 2006)
41. *State v. Simmons*, 186 S.W.3d 418 (Mo. App. S.D. 2006)
42. *Bennett v. Director of Revenue*, 889 S.W.2d 166 (Mo. App. W.D. 1994)
43. *Hinton v. Director of Revenue*, 990 S.W.2d 207 (Mo. App. W.D. 1999)

Chemical Test Evidence

44. *McClellan v. Director of Revenue*, 996 S.W.2d 794 (Mo. App. E.D. 1999)
45. *Nesbitt v. Director of Revenue*, 982 S.W.2d 783 (Mo. App. E.D. 1998)
46. *Francis v. Director of Revenue*, 85 S.W.3d 56 (Mo. App. E.D. 2002)
47. *Smith v. Director of Revenue*, 77 S.W.3d 120 (Mo. App. W.D. 2002)
48. *Schmerber v. California*, 384 U.S. 757 (1966)
49. *Murphy v. Director of Revenue*, 170 S.W.3d 507 (Mo. App. W.D. 2005)
50. *State v. Smith*, 134 S.W.3d 35 (Mo. App. E.D. 2003)
51. *Thomas v. Director of Revenue*, 875 S.W.2d 582, 583 (Mo.App. 1994)
52. *Guccione v. Director of Revenue*, 968 S.W.2d 649 (Mo. App. E.D. 1999)
53. *Childs v. Director of Revenue*, 3 S.W.2d 399 (Mo. App. E.D. 1999)
54. *Burk v. Director of Revenue*, 71 S.W.3d 686 (Mo. App. S.D. 2002)
55. *Turpin v. King*, 693 S.W.2d 895 (Mo. App. S.D. 1985)
56. *Fischbeck v. Director of Revenue*, 91 S.W.3d 699 (Mo. App. E.D. 2002)
57. *Orr v. Director of Revenue*, 54 S.W.3d 201 (Mo. App. W.D. 2001)
58. *Carr v. Director of Revenue*, 95 S.W.3d 121 (Mo. App. W.D. 2002)
59. *Coyle v. Director of Revenue*, 181 S.W.3d 62 (Mo. banc 2005)
60. *Vanderpool v. Director of Revenue*, 95 S.W.3d 121 (Mo. banc 2007)

90-Minute Rule (Arrest Without Warrant)

61. *State v. Eppenauer*, 957 S.W.2d 501 (Mo. App. W.D. 1997)
62. *State v. Bartholomew*, 829 S.W.2d 50 (Mo. App. W.D. 1992)
63. *State v. Setter*, 721 S.W.2d 11 (Mo. App. W.D. 1986).
64. *Strode v. Director of Revenue*, 724 S.W.2d 245 (Mo. banc 1987)
65. *Riche v. Director of Revenue*, 987 S.W.2d 331 (Mo. banc 1999)

20-Minute Rule (Attorney Contact)

66. *Spradling v. Deimeke*, 528 S.W.2d 759 (Mo. 1975)
67. *McMurray v. Director of Revenue*, 800 S.W.2d 820 (Mo. App. E.D. 1990)
68. *Wilmoth v. Director of Revenue*, 903 S.W.2d 595 (Mo. App. W.D. 1995)
69. *Brown v. Director of Revenue*, 34 S.W.3d 166 (Mo. App. W.D. 2000)
70. *Glastetter v. Director of Revenue*, 37 S.W.3d 405 (Mo. App. E.D. 2001)
71. *Akers v. Director of Revenue*, 193 S.W.3d 325 (Mo. App. W.D. 2006)
72. *Green v. Director of Revenue*, 849 S.W.2d 658 (Mo. App. W.D. 1993)
73. *State v. Foster*, 959 S.W.2d 143 (Mo. App. S.D. 1998)
74. *Moody v. Director of Revenue*, 14 S.W.3d 729 (Mo. App. E.D. 2000)
75. *Schmidt v. Director of Revenue*, 48 S.W.3d 688 (Mo. App. W.D. 2001)

76. *Hunter v. Director of Revenue*, 75 S.W.3d 299 (Mo. App. E.D. 2002)
77. *Wall v. Holman*, 902 S.W.2d 329 (Mo. App. W.D. 1995)
78. *Roberts v. Wilson*, 97 S.W.3d 487 (Mo. App. W.D. 2002)
79. *Long v. Director of Revenue*, 65 S.W.3d 545 (Mo. App. W.D. 2001)
80. *Bacandreas v. Director of Revenue*, 99 S.W.3d 497 (Mo. App. E.D. 2003)
81. *Keim v. Director of Revenue*, 86 S.W.3d 177 (Mo. App. E.D. 2002)
82. *McMaster v. Lohman*, 941 S.W.2d 813 (Mo. App. W.D. 1997)
83. *Albrecht v. Director of Revenue*, 833 S.W.2d 40 (Mo. App. E.D. 1992)

Chemical Test Refusal

84. *Spradling v. Deimeke*, 528 S.W.2d 759 (Mo. 1975)
85. *Kiso v. King*, 691 S.W. 2d 374 (Mo.App. 1985)
86. *State v. Brown*, 804 S.W.2d 396 (Mo. App. 1991)
87. *Rogers v. Director of Revenue*, 184 S.W. 3d 137 (Mo.App.W.D. 2006)
88. *Beach v. Director of Revenue*, 188 S.W. 3d 492 (Mo.App.W.D. 2006)
89. *Walker v. Goldberg*, 588 S.W.2d 83 (Mo. App. E.D. 1979)
90. *Rogers v. King*, 684 S.W.2d 390 (Mo. App. W.D. 1985)
91. *Tarlton v. Director of Revenue*, 201 S.W.3d 564 (Mo. App. E.D. 2006)
92. *Benson v. Director of Revenue*, 937 S.W.2d 768 (Mo. App. W.D. 1997)
93. *Sutton v. Director of Revenue*, 20 S.W.3d 918 (Mo. App. S.D. 2000)
94. *Freeman v. Director of Revenue*, 113 S.W.3d 307 (Mo. App. S.D. 2003)
95. *Stewart v. McNeill*, 703 S.W.2d 97 (Mo. App. W.D. 1985)
96. *Zimmerman v. Director of Revenue*, 72 S.W.3d 634 (Mo. App. S.D. 2002)
97. *Arnold v. Director of Revenue*, 593 S.W.2d 624 (Mo. App. S.D. 1980)
98. *Sparling v. Director of Revenue*, 52 S.W.3d 11 (Mo. App. E.D. 2001)
99. *Wofford v. Director of Revenue*, 868 S.W.2d 142 (Mo. App. E.D. 1993)
100. *Blanchard v. Director of Revenue*, 844 S.W.2d 589 (Mo. App. E.D. 1993)
101. *Borgen v. Director of Revenue*, 877 S.W.2d 172 (Mo. App. W.D. 1994)
102. *Phillips v. Wilson*, 66 S.W.3d 176 (Mo. App. W.D. 2002)
103. *Ruth v. Director of Revenue*, 143 S.W. 3d 741 (Mo. App. S.D. 2004)
104. *Kimbrell v. Director of Revenue*, 192 S.W. 3d 712 (Mo.App.W.D. 2006)
105. *State v. Smith*, 134 S.W. 3d 35 (Mo.App.E.D. 2004)



Missouri Department of Health and Senior Services

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RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 3-A

BAC DataMaster Operation Guide

INSTRUMENTATION

The BAC DataMaster is a forensic breath-testing device that measures ethanol (commonly termed “alcohol”) and is based on the principles of infrared spectrometry. The DataMaster accurately determines the amount of alcohol in end-expiratory breath at the time the test is administered. Breath alcohol concentration (BrAC) is directly proportional to blood alcohol concentration (BAC). This is an established scientific truth of great benefit to law enforcement. BrAC and BAC need not be compared, since both are equally reliable and established measures of intoxication.

Following recommendations by the National Safety Council’s Committee on Alcohol and Other Drugs, the Department of Transportation established a conservative standard to legally define alcohol impairment while operating a motor vehicle. This standard is 0.080 grams of alcohol per 210 liters of breath (g/210 L) or per 100 milliliters of blood (g/100 mL). At this level of intoxication, there is well-founded agreement that any individual will be too impaired to drive safely.

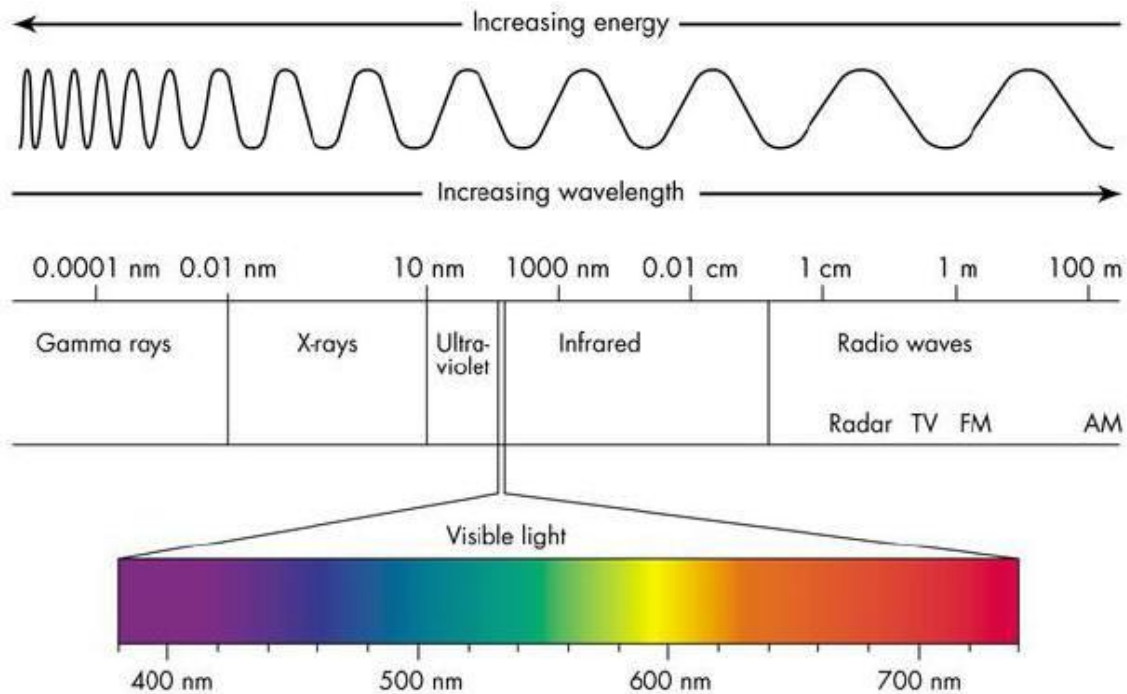
It is important to remember that an arrest is not made on the basis of a breath test alone. It also depends on other factors, such as weaving on the roadway, odor of intoxicants, physical tests, and all those observations that gave you probable cause to believe the driver was under the influence of alcohol and/or drugs.

The DataMaster has been in production since the 1980’s and has been used for the purpose of forensic breath alcohol concentration measurement in over 30 different states and various other countries. The BAC DataMaster has been tested and approved prior to its use for evidential testing in Missouri by both the National Highway Traffic Safety Administration (NHTSA) and the Missouri Department of Health and Senior Services, and is listed on both the NHTSA Conforming Products List and in Missouri’s Regulations 19 CSR 25-30.050, Approved Breath Analyzers.

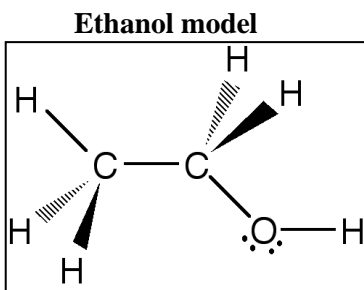
INFRARED SPECTROMETRY

The basis of infrared breath analysis is the absorption of infrared energy by alcohol molecules in a breath specimen. Infrared radiation is a portion of the electromagnetic spectrum. Infrared wavelengths are longer than visible light and are not visible to the human eye. Spectrometry, an analytical method that measures the absorption of radiant energy by a substance, is widely used in the scientific community.

THE ELECTROMAGNETIC SPECTRUM



ETHANOL AND INFRARED ENERGY



The ethanol molecule is composed of two carbon atoms, six hydrogen atoms, and one oxygen atom that are held together in a fixed order by chemical bonds. These chemical bonds absorb infrared energy in a specific and consistent manner. The specific wavelengths absorbed and the absorption pattern are unique, similar to a fingerprint, for a given molecule such as ethanol. The amount of infrared energy absorbed is proportional to the amount of ethanol present in a breath sample.

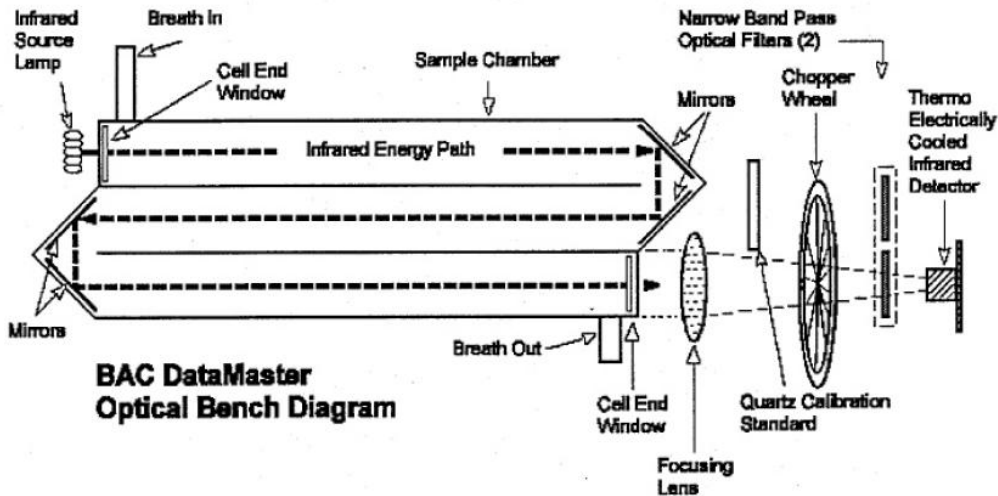
DETERMINATION OF BREATH ALCOHOL CONCENTRATION

The BAC DataMaster uses a law of chemistry and physics known as the Beer-Lambert law to determine the alcohol concentration in a breath sample. The Beer-Lambert law states that the amount of energy absorbed by a particular substance is directly proportional to the number of absorbing molecules in the sample. The amount of infrared energy absorbed in a breath sample is proportional to the amount of ethanol present in a breath sample introduced into the instrument **sample chamber**.

The breath sample enters the sample chamber of the DataMaster where an infrared beam of light interacts with any ethanol present (see schematic diagram below). The amount of infrared energy absorbed in a breath sample is converted to an electrical equivalent (voltage). This voltage measurement is then converted into a BrAC in the DataMaster's Central Processing Unit (CPU). To satisfy the Regulations' requirement that the breath sample be end-expiratory (alveolar) air, the DataMaster automatically monitors breath flow, breath volume, and changes in the breath alcohol concentration to ensure a valid sample is obtained. The sample chamber of the DataMaster is maintained at a temperature (approximately 50 °C) to prevent condensation. Once the sample has been accepted, it is checked for the presence of interfering substances.

The BAC DataMaster reports the measured alcohol concentration in grams of alcohol per 210 liters of breath, as specified by Missouri statute.

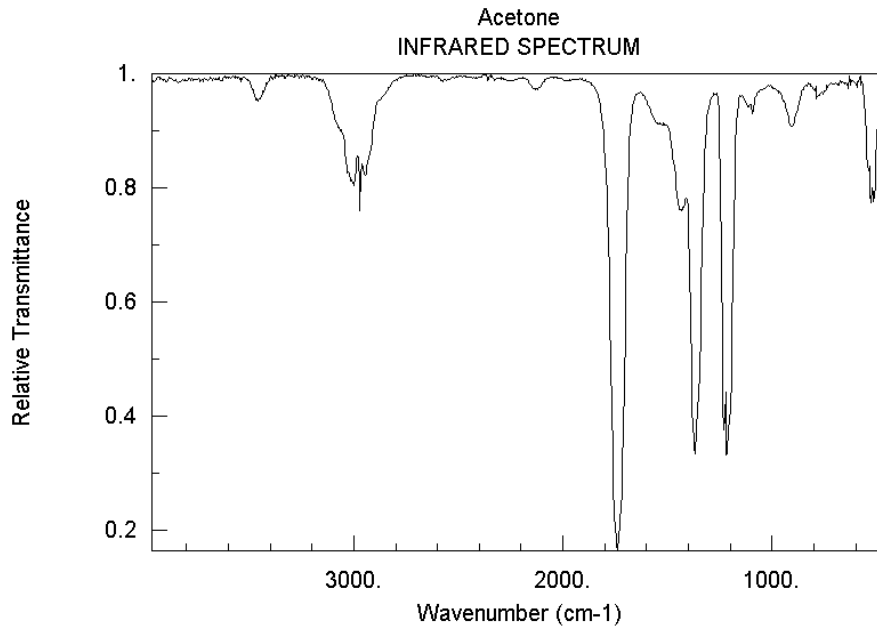
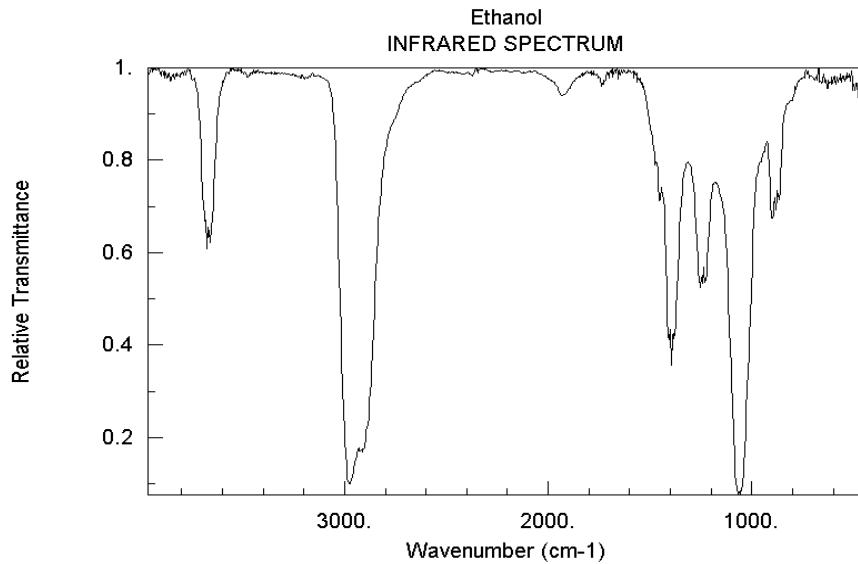
Schematic Diagram of DataMaster Optical Bench



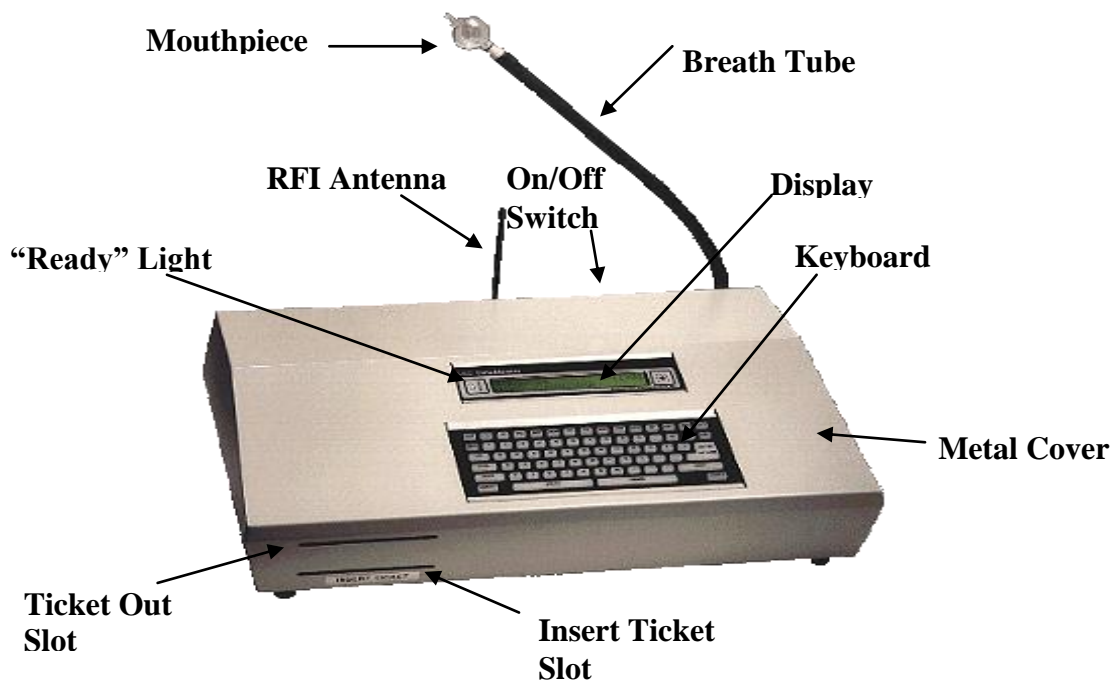
SPECIFICITY

The BAC DataMaster uses two wavelengths of infrared energy to achieve specificity for the analysis of ethanol. Some substances, such as acetone, also absorb infrared energy at these same wavelengths. However, no compound consistent with normal human breath will have the same ratio of absorption at these two wavelengths of infrared energy as ethanol. When the DataMaster detects these differing absorption ratios, it invalidates the test due to the presence of an interfering substance, displays **INTERFERENCE**, and prints **INTERFERE** on the Test Record. The DataMaster will not identify or measure the amount of the interfering substance. It is important to show that acetone is not present since it could be found in the breath of someone in a state of ketosis, such as an untreated diabetic or someone on a prolonged fast.

INFRARED SPECTRUMS OF ETHANOL AND ACETONE



BAC DATAMASTER DIAGRAM



The **display** communicates information and instructions from the instrument to the operator.

The **breath tube** is the heated, reinforced plastic tube on the right rear side of the instrument that functions as the transport mechanism for breath samples from the testing subject to the instrument. It is heated to prevent condensation of water vapor. All breath samples and the room air used in the air blank sequences are directed to the sample chamber through this tube.

The **“Ready” light** indicates when the instrument is warmed up and ready to begin the testing process. During the testing process, the “Ready” light will not be illuminated until the subject has given an adequate breath sample for analysis.

The **On/Off switch** on the rear of the instrument turns the BAC DataMaster on or off.

The **RFI antenna detects** RFI (radio frequency interference) around the instrument.

The **Insert Ticket** slot, usually marked “INSERT TICKET”, serves as the entry point for the chemical test evidence ticket.

The **Ticket Out** slot, located directly above the Insert Ticket slot, serves as the exit point for the evidence ticket after the test is completed and the information has been printed onto the ticket.

The **keyboard** is used for data entry.

DATA ENTRY

The BAC DataMaster has a built-in electronic **keyboard** for data entry by the operator. Most of the keys on the DataMaster keyboard are used exactly like those on a computer keyboard. Just as on a computer keyboard, the top rows of keys on the DataMaster are control keys. There are only three control keys that can be activated by Type III permit holders in the state of Missouri.



Which keys they are and what they accomplish are as follows:

Key	Purpose
RUN	Starts a breath test sequence.
CPY	Provides another copy of the last ticket/test performed.
CLR	Clears any status messages out of the display.

On BAC DataMasters built since 2000, the **USER1** key at the bottom left-hand part of the keyboard is another control key that is available to Type III officers. Pressing and quickly releasing this key advances the printer one line feed. Pressing and holding this key advances the evidence ticket completely through to the “ticket out” slot.

RADIO FREQUENCY INTERFERENCE

Since the BAC DataMaster is an electrical instrument, it is susceptible to the possibility of radio frequency interference (RFI). Radio frequency interference is a disturbance that affects an electrical circuit due to electromagnetic radiation emitted from an external source (such as a walkie-talkie). The disturbance may interrupt, obstruct, or otherwise degrade or limit the effective performance of the circuit.



If the presence of a radio signal is detected during an analysis, the BAC DataMaster will invalidate the test, display “**RADIO INTERFERENCE**”, and print “**RADIO INTERFERENCE**” on the Test Record.

ADMINISTERING A SUBJECT TEST

To administer a subject test on the DataMaster in Missouri, Form #7, “Operational Checklist: DataMaster”, of 19 CSR 25-30 must be completed. This form can be found in 19 CSR 25-30, on page two of form DOR-2389 (Alcohol Influence Report) or on the DHSS website at: <http://health.mo.gov/lab/breathalcohol/>

You should complete an Operational Checklist for each separate test conducted on a subject.

1. The first step of the operational checklist is an examination of the subject’s mouth. This examination can be performed in one of two ways: The officer can perform a limited visual examination of the subject’s mouth, or the officer can ask the subject whether they have any substances in their mouth. Substances are defined as solid or liquid foreign matter, but does not include dentures, dental work, studs, piercings, or tongue jewelry. Once this examination has been completed, the officer may begin the observation period.
2. An officer with a valid Type II or Type III permit must observe the subject for a minimum of fifteen (15) minutes. The officer must remain close enough to the subject during the observation period to reasonably ensure, using the senses of sight, hearing, or smell, that the test subject does not smoke, vomit, or have any oral intake. While the officer must remain close enough to the subject to do this, direct observation is not necessary ensure the test validity or accuracy. The permit holder should carefully observe the subject during both the fifteen-minute observation period as well as while the subject is providing his/her breath sample into the instrument, so that the subject’s actions, demeanor, and behavior can be documented.
3. Assure that the instrument is turned on. If it is not, turn it on and allow it to warm up (approximately 10 – 20 minutes). The instrument is ready to run a test when the green “Ready” Light is illuminated.
4. When the instrument is ready to take a subject sample and the 15 minute observation period has been performed, push the **Run** button on the keyboard.

The DataMaster will display “**PASSWORD**”. Type in the Agency’s password and press enter.

5. The instrument will display “**INSERT TICKET**”. Insert an evidence ticket into the Insert Ticket slot, face down, notch to the right, until it catches. The DataMaster will feed it to the proper position.

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES BLOOD ALCOHOL TEST REPORT - DATAMASTER			FORM #7
SUBJECT'S NAME		DATE OF TEST	
OPERATIONAL CHECKLIST: DATAMASTER			
SERIAL NO.	LOCATION OF INSTRUMENT		
<input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.			
<input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.			
<input type="checkbox"/> 3. Assure that the power switch is ON.			
<input type="checkbox"/> 4. Press RUN button.			
<input type="checkbox"/> 5. When display requests INSERT TICKET, insert evidence ticket.			
<input type="checkbox"/> 6. Enter subject and officer information.			
<input type="checkbox"/> 7. When display reads PLEASE BLOW and gives audible beep, take subject's breath sample.			
<input type="checkbox"/> 8. When printer has completed printing out test result, remove ticket from printer. Attach printout to this report.			
CERTIFICATION BY OPERATOR			BAC
As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:			
<input type="checkbox"/> 1. There was no deviation from the procedure approved by the department.			
<input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly.			
<input type="checkbox"/> 3. I am authorized to operate the instrument.			
<input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this was being conducted.			
NAME OF OPERATOR	PERMIT NO.	EXPIRATION DATE	
WITNESS (IF ANY)			DATE
MO 580-1214 (4-12)		AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis	
		LAB 109 (R4-12)	

6. The DataMaster will now ask the officer the following series of questions. Use the keyboard to type in answers to the questions. After determining that the answer was correct, press the **ENTER/RETURN** key.

- a. **ARREST TIME:**
- b. **SUBJECT'S NAME (L/F/M):**
- c. **SUBJECT'S DOB:** (mm/dd/yy) format
- d. **SUBJECT'S SEX (M/F):**
- e. **STATE:**
- f. **LICENSE NUMBER:**
- g. **ARRESTING OFFICER (L/F/M):**
- h. **OFFICER I.D.:**
- i. **TESTING OFFICER (L/F/M):**
- j. **OFFICER I.D.:**
- k. **PERMIT NUMBER:**
- l. **EXPIRATION DATE:** (mm/dd/yy) format
- m. **ACCIDENT (Y/N):**
- n. **MISCELLANEOUS [1]:**
- o. **MISCELLANEOUS [2]:**

The last question that the display will prompt during data entry is: “**REVIEW DATA? (Y/N)**”. If the officer wishes to correct a mistake made during the data entry, or merely wishes to review the data, hit **Y** on the keyboard and the instrument will send the officer back through each of the questions a – o listed above. Once the officer is satisfied with the data, he should hit the **N** on the keyboard at this stage and the instrument will move out of data entry and into the automated test sequence.

During the automated test sequence the instrument display will show the following series of messages.

PURGING

All chambers and internal plumbing are cleansed of any residual substances by ambient (surrounding) air that is pulled in through the Breath Tube and pumped throughout the instrument by an internal pump. “.000” will appear on the display if the chamber is clear.

AMBIENT ZEROING

After the pump stops, the DataMaster determines zero references based on the ambient air in the Sample Chamber. During this cycle both of the specific wavelength filters are inserted into the infrared light path to establish zero references at each wavelength.

BLANK TEST

A measurement is taken after the “Ambient Zeroing”. “.000” will appear on the display if no contamination was detected.

INTERNAL STANDARD CHECK

During this cycle a quartz plate is inserted into the infrared path to assure that the accuracy of the DataMaster has not changed since it was last calibrated. Each DataMaster stores in memory the exact infrared absorption value of this quartz standard at the time of calibration. The instrument measures the absorption of the

quartz plate and compares this measured value with the value obtained at calibration. The two values must agree within prescribed limits or the operation will be aborted.

After the DataMaster has successfully cycled through these steps of the automatic test sequence, the instrument will display “**SUBJECT REFUSE? (Y/N)**”. If the subject refuses, hit **Y** on the keyboard and the instrument will abort the testing sequence and print a “**REFUSED**” ticket. If the subject is willing to take the test, type “**N**”.

7. The instrument will display “**PLEASE BLOW**” and emit a beeping sound. Insert a mouthpiece into the Breath Tube and have the subject blow at this time.

The officer should advise the subject as follows: “Place your mouth on the mouthpiece and blow long and steady into the tube until I tell you to stop.”

The breath sample has to meet the following three criteria to assure the collection of an adequate sample of end-expiratory (alveolar) breath. These criteria are:

- a. The total breath volume must be at least 1.5 liters.
- b. A breath flow rate of approximately 3.5 – 4 liters per minute must be maintained until the alcohol concentration of the sample reaches an end-expiratory plateau.
- c. The flow rate must then decrease to below 1.5 liters per minute.

The DataMaster allows a two-minute window for the completion of a breath test. At the end of the two minutes, the DataMaster will either print “**INCOMPLETE TEST**” or will ask again “**SUBJECT REFUSE? (Y/N)**”. If the subject is refusing to take the test, hit **Y** on the keyboard and the instrument will abort the testing sequence and print a “**REFUSED**” ticket. If the subject is willing to try and take the test again, type “**N**” and an “**INCOMPLETE TEST**” will print on the evidence ticket.

Once the first two criteria above have been met, the green “Ready” Light will become illuminated again. After the flow rate has decreased to less than 1.5 liters per minute, the instrument will finish the analysis of the breath sample.

After the subject has finished giving a valid breath sample, the DataMaster will display “**ANALYZING**”. Remove the mouthpiece from the Breath Tube before the instrument displays “**PURGING**” and allow the DataMaster to complete the rest of the automated test sequence. Throw the mouthpiece away.

8. The DataMaster will purge the Sample Chamber at this point and the take another BLANK TEST. At the end of this testing sequence, the instrument will print the completed evidence ticket. Remove the evidence ticket and attach it to the “Operational Checklist: DataMaster”. Complete the certification portion of the checklist as appropriate.

Unless a copy of the evidence ticket is illegible, you should attach a copy of each separate evidence ticket obtained on a test subject.

Good hygiene suggests that a new mouthpiece be used for each separate breath test performed on a test subject.

BAC DATAMASTER STATUS CODES

Occasionally, a message, or status code, will appear on the screen and/or on an evidential ticket printout. The following is a list of the messages that will appear on the display and/or on an evidential ticket printout. If one of the following messages is received while operating the BAC DataMaster, please follow the recommended action.

STATUS CODE	CORRECTIVE ACTION
RADIO INTERFERENCE	Find and remove source of radio transmission. Rerun test.
INVALID SAMPLE	Check mouth, wait an additional 15 minutes, try one or more tests. If unsuccessful, request blood sample under implied consent.
INTERFERENCE DETECTED	Try one more test. If interference is detected on the second test, request blood sample under implied consent.
INCOMPLETE SAMPLE	A complete and valid breath test was not given during sampling.
AMBIENT FAIL	Check for odors, check to see if mouthpiece was removed, try one or more tests. If unsuccessful, contact Type II.
BLANK ERROR	Check to see if mouthpiece was removed, try one or more tests. If unsuccessful, contact Type II.
FILTER ERROR	Try one or more tests. If unsuccessful, contact Type II.
CALIBRATION ERROR	Try one or more tests. If unsuccessful, contact Type II.
SYSTEM WON'T ZERO	Try one or more tests. If unsuccessful, contact Type II.
DETECTOR OVERFLOW	Try one or more tests. If unsuccessful, contact Type II.
PUMP ERROR	Try one or more tests. If unsuccessful, contact Type II.
PRINTER ERROR	Contact Type II and go to another instrument.
TEMPERATURE LOW	Out of service. Contact Type II and go to another instrument.
TEMPERATURE HIGH	Out of service. Contact Type II and go to another instrument.
FATAL SYSTEM ERROR	Out of service. Contact Type II and go to another instrument.
RAM ERROR	Out of service. Contact Type II and go to another instrument.
OUT OF SERVICE	Out of service. Contact Type II and go to another instrument.

If any status code appears on the display or on an evidential ticket other than those listed above, discontinue use of the instrument and contact a Type II responsible for maintaining the instrument.



Missouri Department of Health and Senior Services

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 3-B

Intoxilyzer 5000 Operation Guide

INSTRUMENTATION

The Intoxilyzer 5000 is a forensic breath-testing device that measures ethanol (commonly termed “alcohol”) and is based on the principles of infrared spectrometry. The Intoxilyzer 5000 accurately determines the amount of alcohol in end-expiratory breath at the time the test is administered. Breath alcohol concentration (BrAC) is directly proportional to blood alcohol concentration (BAC). This is an established scientific truth of great benefit to law enforcement. BrAC and BAC need not be compared, since both are equally reliable and established measures of intoxication.

Following recommendations by the National Safety Council’s Committee on Alcohol and Other Drugs, the Department of Transportation established a conservative standard to legally define alcohol impairment while operating a motor vehicle. This standard is 0.080 grams of alcohol per 210 liters of breath (g/210 L) or per 100 milliliters of blood (g/100 mL). At this level of intoxication, there is well-founded agreement that any individual will be too impaired to drive safely.

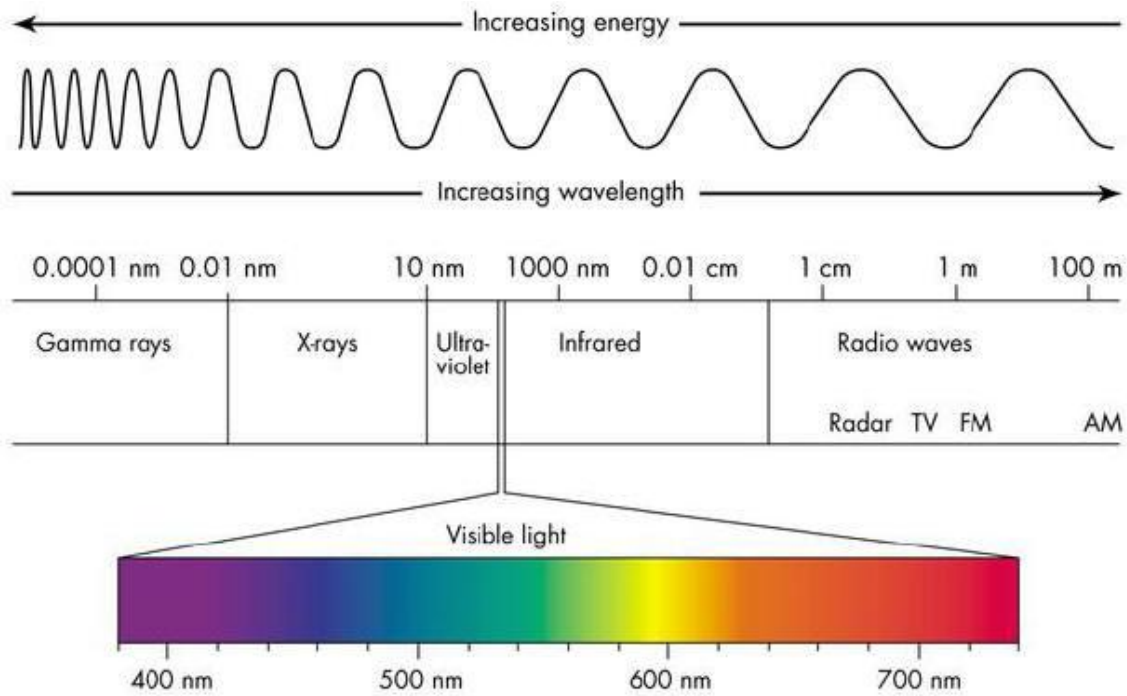
It is important to remember that an arrest is not made on the basis of a breath test alone. It also depends on other factors, such as weaving on the roadway, odor of intoxicants, physical tests, and all those observations that gave you probable cause to believe the driver was under the influence of alcohol and/or drugs.

The Intoxilyzer 5000 has been in production since the 1980’s and has been used for the purpose of forensic breath alcohol concentration measurement in over 30 different states and various other countries. The Intoxilyzer 5000 has been tested and approved prior to its use for evidential testing in Missouri by both the National Highway Traffic Safety Administration (NHTSA) and the Missouri Department of Health and Senior Services, and is listed on both the NHTSA Conforming Products List and in Missouri’s Regulations 19 CSR 25-30.050, Approved Breath Analyzers.

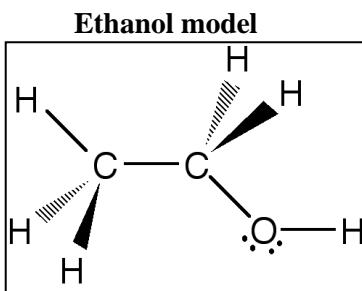
INFRARED SPECTROMETRY

The basis of infrared breath analysis is the absorption of infrared energy by alcohol molecules in a breath specimen. Infrared radiation is a portion of the electromagnetic spectrum. Infrared wavelengths are longer than visible light and are not visible to the human eye. Spectrometry, an analytical method that measures the absorption of radiant energy by a substance, is widely used in the scientific community.

THE ELECTROMAGNETIC SPECTRUM



ETHANOL AND INFRARED ENERGY



The ethanol molecule is composed of two carbon atoms, six hydrogen atoms, and one oxygen atom that are held together in a fixed order by chemical bonds. These chemical bonds absorb infrared energy in a specific and consistent manner. The specific wavelengths absorbed and the absorption pattern are unique, similar to a fingerprint, for a given molecule such as ethanol. The amount of infrared energy absorbed is proportional to the amount of ethanol present in a breath sample.

DETERMINATION OF ALCOHOL CONCENTRATION

The Intoxilyzer 5000 uses a law of chemistry and physics known as the Beer-Lambert law to determine the alcohol concentration in a breath sample. The Beer-Lambert law states that the amount of energy absorbed by a particular substance is proportional to the number of absorbing molecules in the sample. The amount of infrared energy absorbed in a breath sample is proportional to the amount of ethanol present in a breath sample introduced into the instrument sample chamber.

The instrument uses standard AC electrical power as the primary power source. The AC power is converted into regulated DC power by the power supply board. The regulated DC voltage is used to power the electronic circuits in the Intoxilyzer 5000. The instrument uses an automatic gain control (AGC) system to regulate the strength of the multiple signals coming from the photodetector.

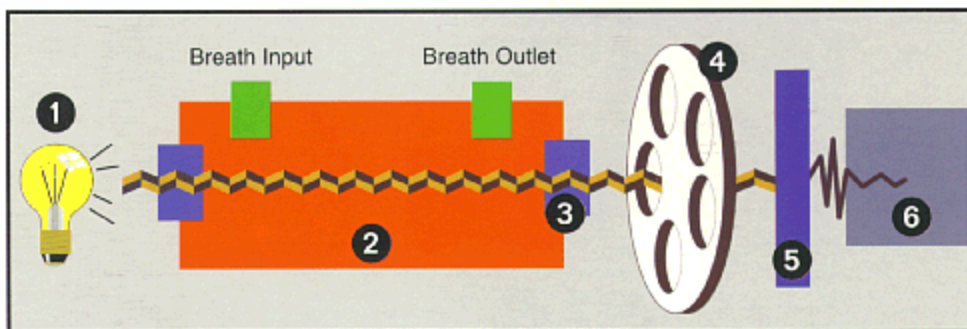
A source lamp at one end of the sample chamber emits a broad spectrum of electromagnetic energy including infrared. A filter wheel and photo detector are located at the opposite end of the sample chamber. The filter wheel has filters that allow only certain wavelengths of infrared energy to pass through to the photo detector. The photo detector converts the infrared energy into electrical energy.

When alcohol is introduced into the sample chamber, by either the test subject or the reference sample device, the amount of infrared energy reaching the photo detector will decrease. The decrease in the infrared energy striking the photo detector is directly proportional to the increase in the alcohol concentration in the sample chamber. The breath alcohol concentration is determined by the difference between the zero reference point and the breath sample measurement.

If an improper environmental testing condition, an improper instrument testing condition, or an operational mistake is detected at any point during the test, the Intoxilyzer 5000 will stop the analysis and invalidate the test. The reason for the invalidation will be displayed and printed; no analytical results will be printed.

The Intoxilyzer 5000 reports the measured alcohol concentration in grams of alcohol per 210 liters of breath, as specified by Missouri statute.

Diagram of Intoxilyzer 5000 Optical Bench

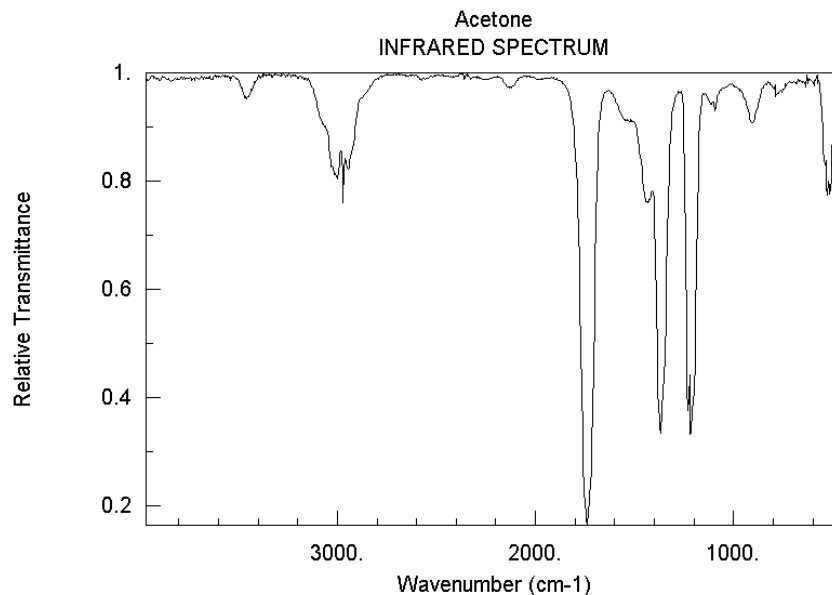
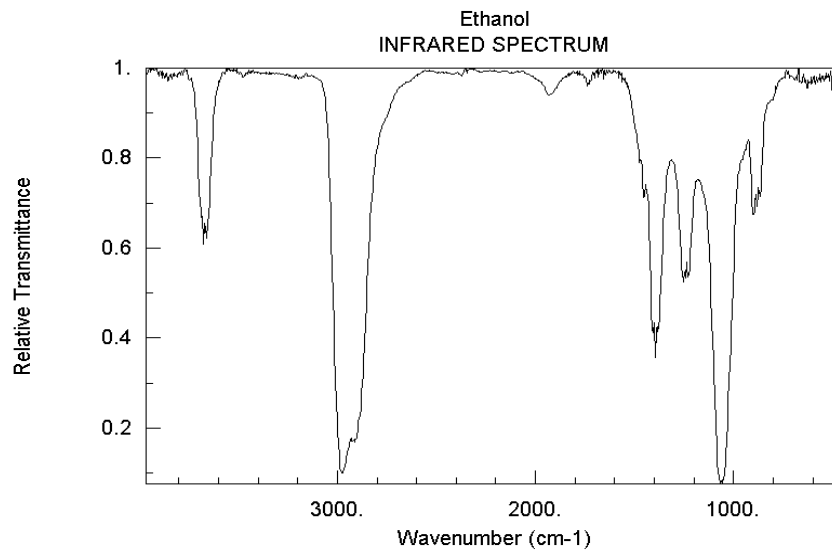


The Intoxilyzer 5000 measures the degree alcohol absorbs infrared energy...the more alcohol present, the greater the absorption. As shown, a quartz lamp (1) generates IR energy which travels through a sample chamber (2) containing the subject's breath. Upon leaving the chamber, a lens (3) focuses the energy onto the chopper wheel (4) containing three or five narrowband IR filters. The IR energy passed by the filters is focused on a highly sensitive photo detector (5) which converts the IR pulses into electrical pulses. The microprocessor (6) interprets the pulses and calculates the Blood Alcohol Concentration which is then displayed.

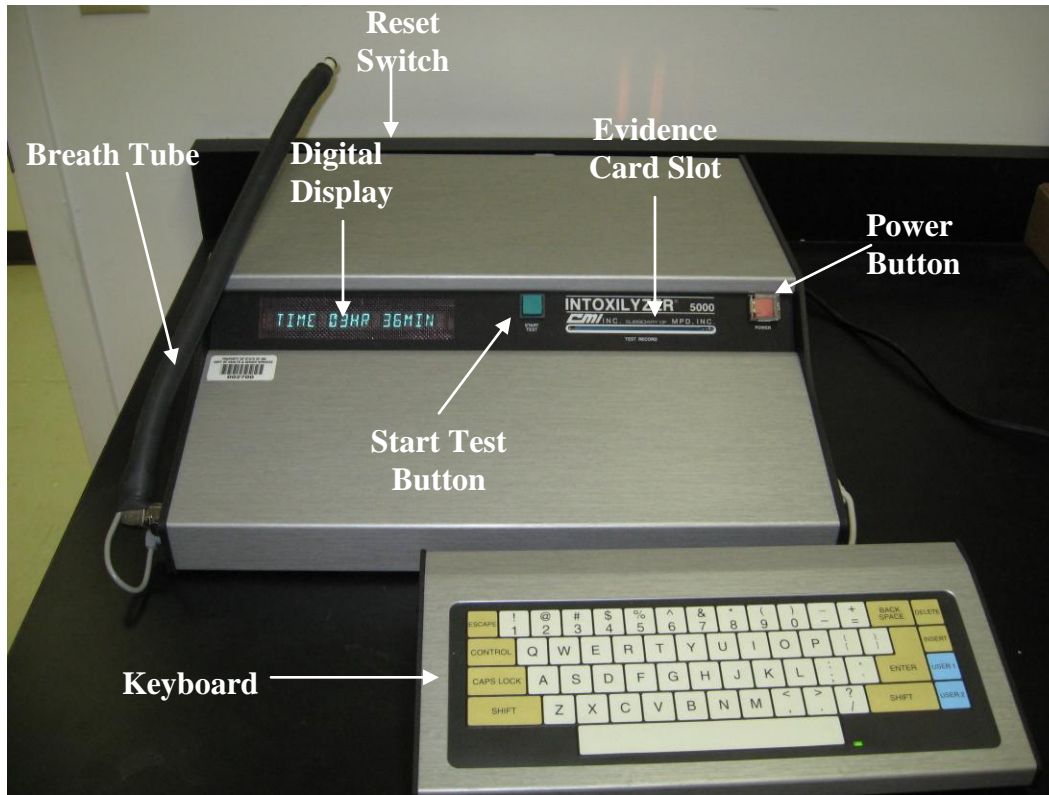
SPECIFICITY

The Intoxilyzer 5000 uses multiple wavelengths of infrared energy to achieve specificity for the analysis of ethanol. Other substances, such as acetone, also absorb infrared energy at some of the same wavelengths as ethanol. However, no compound consistent with normal human breath will have the same ratio of absorption at these wavelengths of infrared energy as ethanol. When the Intoxilyzer 5000 detects these differing absorption patterns, it will invalidate the test due to the presence of an interfering substance, display “**INTERFERENT**”, and print “**INTERFERENT DETECTED TAKE ALTERNATIVE TEST**” on the Test Record. The Intoxilyzer 5000 will not identify or measure the amount of the interfering substance. It is important to show that acetone is not present since it could be found in the breath of someone in a state of ketosis, such as an untreated diabetic or someone on a prolonged fast.

INFRARED SPECTRUMS OF ETHANOL AND ACETONE



INTOXILYZER 5000 DIAGRAM



The **Digital Display** communicates information and instructions from the instrument to the operator.

The **Breath Tube** is the heated, reinforced plastic tube on the right rear side of the instrument that functions as the transport mechanism for breath samples from the testing subject to the instrument. It is heated to prevent condensation of water vapor. All breath samples and the room air used in the air blank sequences are directed to the sample chamber through this tube.

The **Start Test Button**, which is the green button in the middle of the instrument, starts a breath test sequence.

The **Power Button** on the right of the instrument turns the Intoxilyzer 5000 on/off.

The **Evidence Card Slot** serves as the entry/exit point for the chemical test evidence card.

The **Reset Switch** is located on the back left side of the instrument underneath the brass exhaust port. This rocker switch may be used if the display on the instrument stops scrolling or the instrument will not proceed to the next step. After the diagnostic test the display should begin scrolling and the Start Test switch may be depressed to begin a new test. If the condition persists, discontinue use of the instrument and contact a Type II responsible for maintaining the instrument.

The **Keyboard** is used for data entry.

DATA ENTRY

The Intoxilyzer 5000 is equipped with an electronic keyboard for data entry by the operator. Instrument activity and information entered via the keyboard is stored in the instrument's electronic memory and printed.



RADIO FREQUENCY INTERFERENCE

Since the Intoxilyzer 5000 is an electrical instrument, it is susceptible to the possibility of radio frequency interference (RFI). Radio frequency interference is a disturbance that affects an electrical circuit due to electromagnetic radiation emitted from an external source (such as a walkie-talkie). The disturbance may interrupt, obstruct, or otherwise degrade or limit the effective performance of the circuit.



If the presence of a radio signal is detected during an analysis, the Intoxilyzer 5000 will invalidate the test, display “**INHIBITED RFI**”, and print “**INHIBITED-RFI**” on the Test Record.

ADMINISTERING A SUBJECT TEST

To administer a subject test on the Intoxilyzer 5000 in Missouri, Form #5, "Operational Checklist: Intoxilyzer 5000", of 19 CSR 25-30 must be completed. This form can be found in 19 CSR 25-30, on page two of form DOR-2389 (Alcohol Influence Report) or on the DHSS website at:

<http://health.mo.gov/lab/breathalcohol/>

You should complete an Operational Checklist for each separate test conducted on a subject.

1. The first step of the operational checklist is an examination of the subject's mouth. This examination can be performed in one of two ways: The officer can perform a limited visual examination of the subject's mouth, or the officer can ask the subject whether they have any substances in their mouth. Substances are defined as solid or liquid foreign matter, but does not include dentures, dental work, studs, piercings, or tongue jewelry. Once this examination has been completed, the officer may begin the observation period.
2. An officer with a valid Type II or Type III permit must observe the subject for a minimum of fifteen (15) minutes. The officer must remain close enough to the subject during the observation period to reasonably ensure, using the senses of sight, hearing, or smell, that the test subject does not smoke, vomit, or have any oral intake. While the officer must remain close enough to the subject to do this, direct observation is not necessary ensure the test validity or accuracy. The permit holder should carefully observe the subject during both the fifteen-minute observation period as well as while the subject is providing his/her breath sample into the instrument, so that the subject's actions, demeanor, and behavior can be documented.
3. Assure that the instrument is turned on. If it is not, turn it on and allow it to warm up (approximately 10 – 20 minutes). When the instrument has reached temperature, it goes through a series of diagnostic checks. If the Intoxilyzer 5000 successfully passes the diagnostic checks, the Digital Display will begin to cycle from right to left. During this cycle, the instrument will display the time, date, and will flash "**PUSH BUTTON**". When the instrument is ready to take a subject sample and the 15 minute observation period has been performed, push the green **Start Test** button on the instrument.

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES		
BLOOD ALCOHOL TEST REPORT - INTOXILYZER 5000		FORM #5
SUBJECT'S NAME		DATE OF TEST
OPERATIONAL CHECKLIST: INTOXILYZER 5000		
SERIAL NUMBER	LOCATION OF INSTRUMENT	
<input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.		
<input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.		
<input type="checkbox"/> 3. Assure that the power switch is ON and then press the START TEST button.		
<input type="checkbox"/> 4. Enter test record card.		
<input type="checkbox"/> 5. Enter subject and officer information		
<input type="checkbox"/> 6. When display reads PLEASE BLOW , insert mouthpiece and take the subject's breath sample.		
<input type="checkbox"/> 7. When test record is printed, remove test record and attach printout to this report.		
CERTIFICATION BY OPERATOR		BAC
As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:		
<input type="checkbox"/> 1. There was no deviation from the procedure approved by the department.		
<input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly.		
<input type="checkbox"/> 3. I am authorized to operate the instrument.		
<input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this test was being conducted.		
NAME OF OPERATOR	PERMIT NO.	EXPIRATION DATE
WITNESS (IF ANY)		DATE
<small>MO 510-12-12 (4-12) AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis LAB 107A (914-12)</small>		

4. The instrument will display “INSERT CARD”. Insert an evidence card into the Evidence Card Slot face up. The printer will take the ticket and advance it to the top margin position.
5. The Intoxilyzer 5000 will now ask the officer the following series of questions. Use the keyboard to type in answers to the questions. After determining that the answer is correct, press the RETURN key. If a mistake is made while entering data, use the backspace key on the keyboard to correct.
 - a. **SUB LAST NAME =**
 - b. **SUB FIRST NAME =**
 - c. **SUB MIDDLE NAME =**
 - d. **SEX =** (M/F) format
 - e. **SUB DOB = MMDDYY**
 - f. **STATE ISSUE =**
 - g. **SUB DRIV LIC =**
 - h. **OFFICER LAST =**
 - i. **OFFICER ID =**
 - j. **OPERATOR LAST =**
 - k. **OPERATOR ID =**
 - l. **PERMIT NUMBER =**
 - m. **EXPIRE DATE =** (mm/dd/yy) format
 - n. **ACCIDENT (Y/N) =**
 - o. **MISC. DATA =**

The last question that the display will prompt during data entry is: “**REVIEW DATA? Y/N**”. If the officer wishes to correct a mistake made during the data entry, or merely wishes to review the data, hit Y on the keyboard and the instrument will send the officer back through each of the questions a – o listed above. Once the officer is satisfied with the data, he should hit the N on the keyboard at this stage and the instrument will move out of data entry and into the automated test sequence.

During the automated test sequence the instrument display will show the following series of messages.

AIR BLANK

All chambers and internal plumbing are cleansed of any residual substances by ambient (surrounding) air that is pulled in through the Breath Tube and pumped throughout the instrument by an internal pump. After the pump stops, the Intoxilyzer 5000 determines a zero reference point based on the ambient air in the Sample Chamber and will display “.000”.

>>>>>>

During this cycle the Intoxilyzer 5000 is establishing the zero reference point and ensuring that the signal coming from the detector is stable.

6. After the Intoxilyzer 5000 has successfully cycled through these steps of the automatic test sequence, the instrument will display “**PLEASE BLOW/R UNTIL THE TONE STOPS**” initially, followed with the displayed message “**PLEASE BLOW/R**”, accompanied by an intermittent beeping tone. If the

subject refuses, hit R on the keyboard and the instrument will abort the testing sequence and print a “REFUSED” ticket. If the subject is not refusing to take the breath test, insert a mouthpiece into the Breath Tube and have the subject blow at this time.

The officer should advise the subject as follows: ***“Place your mouth on the mouthpiece and blow long and steady into the tube until I tell you to stop.”***

The breath sample has to meet the following three criteria to assure the collection of an adequate sample of end-expiratory (alveolar) breath. These criteria are:

- a. The subject must blow with sufficient pressure to sound the tone in the instrument.
- b. During this breath flow, this pressure must be maintained continuously for a minimum time.
- c. The instrument, which monitors the rate of change in the alcohol concentration of the breath sample, must reach an end-expiratory plateau.

The Intoxilyzer 5000 allows a three-minute window for the completion of a breath test. If a complete breath sample has not been acquired by the end of the three minutes, the Intoxilyzer 5000 will print “INSUFFICIENT TEST”.

Once the breath pressure is no longer enough to keep the breath pressure switch triggered, the instrument will finish the analysis of the breath sample.

After the subject has finished giving a valid breath sample, the Intoxilyzer 5000 will display the subject’s Breath Alcohol Concentration. Remove the mouthpiece from the Breath Tube immediately and allow the Intoxilyzer 5000 to complete the rest of the automated test sequence. Throw the mouthpiece away.

7. The Intoxilyzer 5000 will purge the Sample Chamber at this point and take another air blank. At the end of this testing sequence, the instrument will print the completed evidence ticket. Remove the evidence card and attach it to the “Operational Checklist: Intoxilyzer 5000”. Complete the certification portion of the checklist as appropriate.

Unless a copy of the evidence ticket is illegible, you should attach a copy of each separate evidence ticket obtained on a test subject.

Good hygiene suggests that a new mouthpiece be used for each separate breath test performed on a test subject.

INTOXILYZER 5000 OPERATIONAL MESSAGES

Occasionally, a message, or status code, will appear on the screen and/or on an evidential ticket printout. The following is a list of the messages that will appear on the display and/or on an evidential ticket printout. If one of the following messages is received while operating the Intoxilyzer 5000, please follow the recommended action.

DISPLAY MESSAGE	TEST-RECORD MESSAGE	EXPLANATION AND CORRECTIVE ACTION
INHIBITED RFI	EXXX.XX INVALID TEST INHIBITED - RFI	Find and remove source of radio transmission. Attempt to conduct another test.
INVALID SAMPLE	INVALID SAMPLE .XXX	Check mouth, wait an additional 15 minutes, try one or more tests. If unsuccessful, request blood sample under implied consent.
INTERFERENT	EXXX.XX INVALID TEST INTERFERENT DETECTED TAKE ALTERNATIVE TEST	Try one more test. If interference is detected on the second test, request blood sample under implied consent.
INSUFFICIENT SAMPLE	EXXX.XX INVALID TEST SUBJECT DID NOT PROVIDE VALID SAMPLE	A complete and valid breath sample was not provided in the time allotted.
AMBIENT FAILED	EXXX.XX INVALID TEST CHECK AMBIENT CONDITIONS	Check for odors, check to see if mouth-piece was removed, try one or more tests. If unsuccessful, contact Type II.
IMPROPER SAMPLE	EXXX.XX SAMPLE INTRODUCED AT IMPROPER TIME	Subject provided breath sample at the wrong time. Conduct another test.
RANGE EXCEEDED	EXXX.XX INVALID TEST INSTRUMENT RANGE EXCEEDED	Sample alcohol concentration is above 0.60 g/210 L
UNSTABLE REF	EXXX.XX INVALID TEST UNABLE TO OBTAIN A STABLE REFERENCE	The DVM is unstable. Please Contact Type II and go to another instrument.
INVALID TEST	EXXX.XX INVALID TEST	Test card removed at improper time. Attempt to conduct another test.

If any status code appears on the display or on an evidential ticket other than those listed above, discontinue use of the instrument and contact a Type II responsible for maintaining the instrument.



Missouri Department of Health and Senior Services

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
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Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 3-C

Alco-Sensor IV with Printer Operation Guide

INSTRUMENTATION

The Alco-Sensor IV is a forensic breath-testing device that measures ethanol (commonly termed “alcohol”) using an electrochemical cell, also known as a fuel cell. The Alco-Sensor IV accurately determines the amount of alcohol in end-expiratory breath at the time the test is administered. Breath alcohol concentration (BrAC) is directly proportional to blood alcohol concentration (BAC). This is an established scientific truth of great benefit to law enforcement. BrAC and BAC need not be compared, since both are equally reliable and established measures of intoxication.

Following recommendations by the National Safety Council’s Committee on Alcohol and Other Drugs, the Department of Transportation established a conservative standard to legally define alcohol impairment while operating a motor vehicle. This standard is 0.080 grams of alcohol per 210 liters of breath (g/210 L) or per 100 milliliters of blood (g/100 mL). At this level of intoxication, there is well-founded agreement that any individual will be too impaired to drive safely.

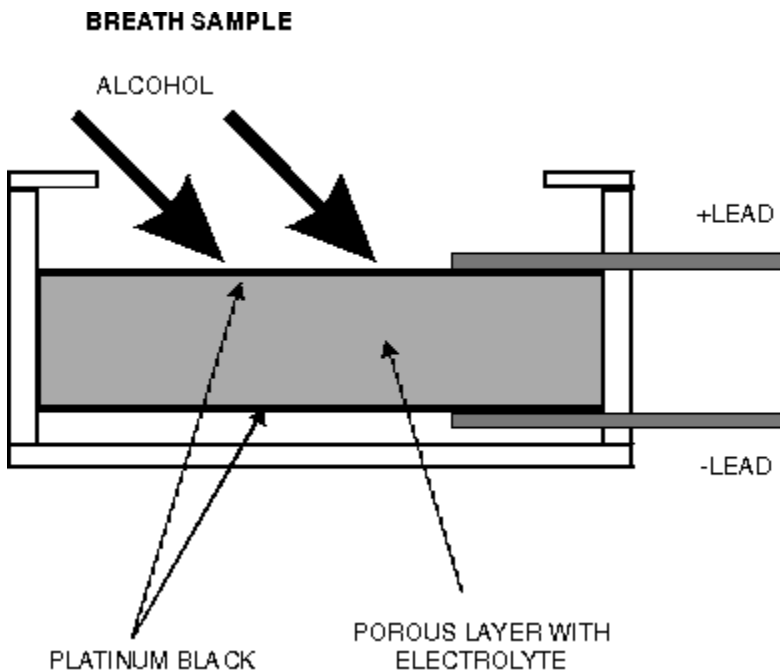
It is important to remember that an arrest is not made on the basis of a breath test alone. It also depends on other factors, such as weaving on the roadway, odor of intoxicants, physical tests, and all those observations that gave you probable cause to believe the driver was under the influence of alcohol and/or drugs.

The Alco-Sensor IV has been in production since the 1980’s and has been used for the purposes of both preliminary and forensic breath alcohol concentration measurement in over 30 different states and various other countries. The Alco-Sensor IV has been tested and approved for evidential breath alcohol analysis by the National Highway Traffic Safety Administration (NHTSA). When used with a printer as bench-top instrument, it is approved for evidential testing in Missouri by the Missouri Department of Health and Senior Services, and is listed on both the NHTSA Conforming Products List and in Missouri’s Regulations 19 CSR 25-30.050, Approved Breath Analyzers.

ALCOHOL FUEL CELL TECHNOLOGY

In its simplest form, the alcohol fuel cell consists of a porous, chemically inert layer coated on both sides with platinum oxide (called platinum black). The manufacturer impregnates the porous layer with an acidic electrolyte solution, and applies platinum wire electrical connections to the platinum black surfaces. The fuel cell assembly is mounted in a case, which includes a gas inlet that allows a breath sample to be introduced. The basic configuration of an alcohol fuel cell is illustrated in Figure 1.

Figure 1. Basic Fuel Cell Configuration



DETERMINATION OF BREATH ALCOHOL CONCENTRATION

The chemical reaction that takes place in an alcohol fuel cell converts alcohol to acetic acid. In the process, this conversion produces a fixed number of free electrons per molecule of alcohol. This reaction takes place on the upper surface of the fuel cell. H^+ ions are freed in the process, and migrate to the lower surface of the cell, where they combine with atmospheric oxygen to form water, consuming one electron per H^+ ion in the process. Thus, the upper surface has an excess of electrons, and the lower surface has a corresponding deficiency of electrons. If you connect the two surfaces electrically, a current flows through this external circuit to neutralize the charge. This current is a direct indication of the amount of alcohol consumed by the fuel cell. By measuring the amount of current, you can determine the amount of alcohol in the sample. The fuel cell produces a linear relationship between the amount of current generated from the alcohol oxidization reaction and the alcohol concentration in the breath sample. To satisfy the Regulations' requirement that the breath sample be end-expiratory (alveolar) air, the Alco-Sensor IV automatically monitors breath flow to ensure a valid sample is obtained.

The Alco-Sensor IV reports the measured alcohol concentration in grams of alcohol per 210 liters of breath, as specified by Missouri statute.

SPECIFICITY

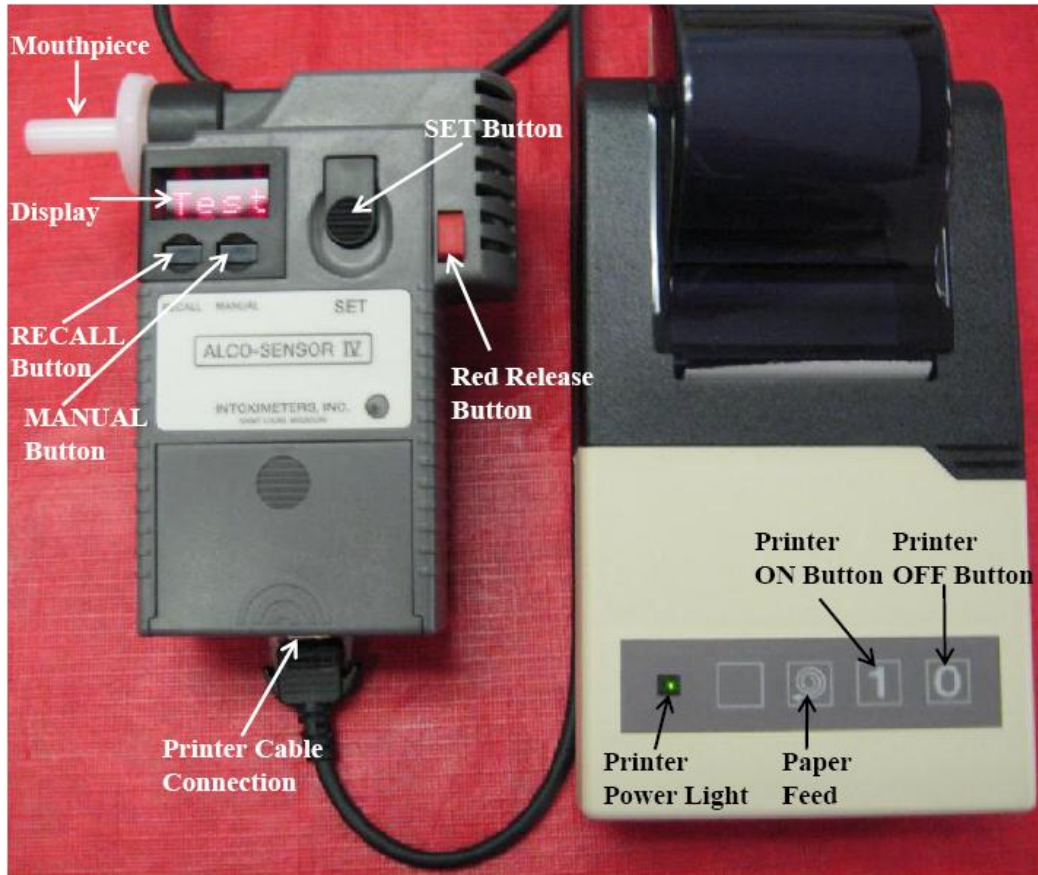
Due to the nature of their construction, the alcohol fuel cell used in the Alco-Sensor IV is highly specific for alcohol on the human breath. The following is an abbreviated list of substances tested by the University of Tennessee at Memphis to measure their response on the Alco-Sensor IV.

ALCO-SENSOR IV RESPONSE TO VARIOUS SUBSTANCES¹

Substance	Vapor Concentration (mg/l)	Alco-Sensor IV Response (gm/dl)
Acetaldehyde	0.1	0.002
Acetone	0.1	0.0
Acetonitrile	0.1	0.0
Benzene	0.05	0.0
2-Butanol	0.1	0.002
Cyclohexane	0.1	0.0
Diethylether	0.1	0.0
Ethanol	0.1	0.100
Ethylacetate	0.06	0.0
Gasoline	0.1	0.002
Isoprene	0.1	0.002
Isopropanol	0.06	0.005
Methane	0.1	0.0
Methanol	0.04	0.008
MEK	0.06	0.0
n-Pentane	0.1	0.0
n-Hexane	0.1	0.0
n-Heptane	0.1	0.0
n-Octane	0.1	0.0
Mineral Spirits	0.1	0.0
Tetrachloroethylene	0.05	0.0
Toluene	0.05	0.0
Trichlorethylene	0.1	0.0
Xylene	0.1	0.0

1. Stafford, David T. 1993. "Investigation of the Response of Fuel Cell Based Alcohol Breath Test Instruments to Substances Other than Ethanol:" Tennessee: University of Tennessee Toxicology Laboratory.

ALCO-SENSOR IV WITH PRINTER DIAGRAM



The **display** communicates information and instructions from the instrument to the operator.

The **mouthpiece** functions as the transport mechanism for breath samples from the testing subject to the instrument. Proper insertion of the mouthpiece also turns the Alco-Sensor IV on. All breath samples and the room air used in the air blank sequences are directed to the sample chamber through the mouthpiece.

The **SET Button** cocks the sampling pump to accept the sample.

The **RECALL Button** allows the operator to print a previous test.

The **MANUAL Button** has no valid function during a subject breath test.

The **Red Release Button** ejects the mouthpiece, thereby also turning the instrument off.

The **Printer Cable Connection** sends data from the Alco-Sensor IV to the printer.

The use of the **MANUAL** button to obtain a breath alcohol test result is not considered a valid test result by the Missouri Department of Health and Senior Services. If the **MANUAL** button is accidentally depressed during a testing sequence, restart the testing sequence.

DATA ENTRY

The Alco-Sensor IV does not have a keyboard for data entry. The printed Test Record includes spaces for the operator to write in the Subject Name, I.D., Operator Name and I.D., and Location of instrument. It is the duty of the officer to correctly and adequately complete the test record with this information following a breath test sequence.

RADIO FREQUENCY INTERFERENCE

Since the Alco-Sensor IV is an electrical instrument, it is susceptible to the possibility of Radio Frequency Interference (RFI). Radio frequency interference is a disturbance that affects an electrical circuit due to electromagnetic radiation emitted from an external source (such as a walkie-talkie). The disturbance may interrupt, obstruct, or otherwise degrade or limit the effective performance of the circuit.

If the presence of a radio signal is detected during an analysis, the Alco-Sensor IV will invalidate the test, display “**RFI!**”, and print “**Void: RFI**” on the Test Record.

ADMINISTERING A SUBJECT TEST

To administer a subject test on the Alco-Sensor IV with Printer in Missouri, Form #8, “Operational Checklist: Alco-Sensor IV With Printer”, of 19 CSR 25-30 must be completed. This form can be found in 19 CSR 25-30, on page two of form DOR-2389 (Alcohol Influence Report) or on the DHSS website at:

<http://health.mo.gov/lab/breathalcohol/>

You should complete an Operational Checklist for each separate test conducted on a subject.

1. The first step of the operational checklist is an examination of the subject’s mouth. This examination can be performed in one of two ways: The officer can perform a limited visual examination of the subject’s mouth, or the officer can ask the subject whether they have any substances in their mouth. Substances are defined as solid or liquid foreign matter, but does not include dentures, dental work, studs, piercings, or tongue jewelry. Once this examination has been completed, the officer may begin the observation period.

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES BLOOD ALCOHOL TEST REPORT - ALCO-SENSOR IV WITH PRINTER			FORM #8
SUBJECT'S NAME		DATE OF TEST	
OPERATIONAL CHECKLIST: ALCO-SENSOR IV WITH PRINTER			
ALCO-SENSOR SERIAL NO.	PRINTER SERIAL NO.	LOCATION OF INSTRUMENT	
<input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.			
<input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____ No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with 15 minute observation period.			
<input type="checkbox"/> 3. Make sure printer is connected to Alco-Sensor IV.			
<input type="checkbox"/> 4. Turn printer on.			
<input type="checkbox"/> 5. Insert mouthpiece into Alco-Sensor IV.			
<input type="checkbox"/> 6. Observe temperature display, make sure temperature reading is between 10°C and 40°C.			
<input type="checkbox"/> 7. When "BLNK" is displayed on Alco-Sensor IV, air blank is taken.			
<input type="checkbox"/> 8. When "TEST" is displayed on Alco-Sensor IV, take subject breath sample.			
<input type="checkbox"/> 9. When "SET" is displayed on Alco-Sensor IV, press SET button.			
<input type="checkbox"/> 10. When printer has completed printing test result, tear off tape and fill in subject and officer information.			
<input type="checkbox"/> 11. Press red button to eject mouthpiece.			
<input type="checkbox"/> 12. Turn printer off.			
<input type="checkbox"/> 13. Attach printout to this report.			
CERTIFICATION BY OPERATOR			BAC
As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:			
<input type="checkbox"/> 1. There was no deviation from the procedure approved by the department.			
<input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly.			
<input type="checkbox"/> 3. I am authorized to operate the instrument.			
<input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this was being conducted.			
NAME OF OPERATOR		PERMIT NO.	EXPIRATION DATE
WITNESS (IF ANY)		DATE	

2. An officer with a valid Type II or Type III permit must observe the subject for a minimum of fifteen (15) minutes. The officer must remain close enough to the subject during the observation period to reasonably ensure, using the senses of sight, hearing, or smell, that the test subject does not smoke, vomit, or have any oral intake. While the officer must remain close enough to the subject to do this, direct observation is not necessary ensure the test validity or accuracy. The permit holder should carefully observe the subject during both the fifteen-minute observation period as well as while the subject is providing his/her breath sample into the instrument, so that the subject's actions, demeanor, and behavior can be documented.
3. Make sure that the printer is attached to the Alco-Sensor IV.
4. Turn the printer on. If display shows LO BAT, or if the printer otherwise does not function, recharge the printer battery or plug into wall before continuing.
5. Insert an Alco-Sensor IV mouthpiece into the Alco-Sensor IV. This turns the instrument on.
6. Observe the temperature displayed on the instrument display panel. This temperature must read between 10 °C and 40 °C. The instrument will then display the current time and date and will move immediately into the automated test sequence.
7. During the automated test sequence the instrument display will show the following series of messages.

ALTERNATING “<” AND “>” SYMBOLS

The Alco-Sensor IV is monitoring the fuel cell output to ensure that the system is stable and free of alcohol.

BLNK

When unit displays BLNK, the unit runs a blank test and then displays the result of the test. “.000” will appear on the display if the fuel cell is free of alcohol. If not, the test sequence will void.

8. When “**TEST**” is displayed on the display panel, the Alco-Sensor IV is ready to take a sample of the subject's breath.

The officer should advise the subject as follows: “Place your mouth on the mouthpiece and blow long and steady until I tell you to stop.”

The breath sample has to meet the following three criteria to assure the collection of an adequate sample of end-expiratory (alveolar) breath. These criteria are:

- a. The subject must blow with sufficient flow rate to sound the tone in the instrument and have a “+” appear on the instrument display.
- b. During the breath flow, this flow rate must be maintained continuously until a minimum volume has been delivered.

- c. The flow rate must then decrease as flow diminishes naturally from a subject. If the flow rate decreases too abruptly, the instrument will void the testing sequence and print “**Void: DEFICIENT SAMPLE**”. If the sample is not sufficient for analysis, the display will have the message “**NOGO**”. The subject has two more attempts to deliver an adequate breath sample before the testing sequence is voided.

The Alco-Sensor IV allows a 60 – 70 second window for the completion of a breath test. If three insufficient samples were delivered during this timeframe, the instrument will void the testing sequence and print “**Void: INSF SAMP**”. If a complete breath sample has simply not been acquired by the end of the three minutes, the Alco-Sensor IV will print “**Void: TIME OUT**”.

If a suitable sample has been delivered, a single click will be heard by the operator.

As soon as an adequate breath sample has been delivered to the Alco-Sensor IV, the alternating “<” and “>” will reappear, indicating that the instrument is analyzing the breath sample. Once the instrument has completed analysis of the breath sample, it will beep for three (3) seconds while displaying the measured Breath Alcohol Concentration.

After the instrument is done displaying the measured BAC, the Alco-Sensor IV will show alternating “.” on the display as it sends the test sequence information to the attached printer.

9. Once the Alco-Sensor IV is done sending data to the printer, it will show the display message “**SET**”. At this point depress the SET button to cock the sampling pump back into position for the next test sequence.
10. Tear off the test record and fill in subject and testing operator’s information.
11. At this point, the instrument is done conducting a breath alcohol test. Press the red release button to eject the mouthpiece.
12. Turn off the printer.
13. Attach the printout to the “Operational Checklist: Alco-Sensor IV With Printer” and finish completing the Operational Checklist. Complete the certification portion of the checklist as appropriate.

Unless a copy of the evidence ticket is illegible, you should attach a copy of each separate evidence ticket obtained on a test subject.

Good hygiene suggests that a new mouthpiece be used for each separate breath test performed on a test subject.

ALCO-SENSOR IV STATUS MESSAGES

Occasionally, a message, or status code, will appear on the screen or on the evidential printout of the Alco-Sensor IV. The following is a list of some of the more common messages that may appear. If one of the following messages is received while operating the Alco-Sensor IV with printer, please follow the recommended action.

DISPLAYED MESSAGES

STATUS CODE	EXPLANATION AND CORRECTIVE ACTION
NOGO	An insufficient sample was given. Subjects are afforded three (3) attempts to deliver a proper sample before test is voided.
MEM/WARN	Warns that the internal memory is almost full.
MEM/FULL	The internal memory is full. Contact Type II to empty instrument memory before taking a subject's breath sample.
SET	The SET button needs to be depressed to cock the sampling pump.
VOID	A condition not conducive to taking a breath sample exists. Turn the unit off and restart the testing sequence.
>XXX	Sample concentration in excess of instrument limit (>0.400)
RFI!	Radio Frequency Interference (RFI) was detected. Find and remove the source of RFI and restart the test.
TMP>	Out of service. Contact Type II and go to another instrument.
TMP<	Out of service. Contact Type II and go to another instrument.

PRINTED MESSAGES

Void: SET PUSH	The SET button was depressed during the breath sample. Restart the testing sequence.
Void: RFI	Radio Frequency Interference (RFI) was detected. Find and remove the source of RFI and restart the test.
Void: INSF SAMP	Subject gave three (3) insufficient samples and test was therefore voided. Change mouthpiece and try again or request blood under implied consent.
Void: TIME OUT	A sufficient sample was not given during the time limit.
Void: DEFICIENT SAMPLE	The subject stopped blowing abruptly, rather than allowing their breath flow to slowly decrease as it ran out. Restart test.
Subject Test: Man	The MANUAL button was depressed during breath sampling. This is not considered a valid test. Restart the testing sequence.

If any message appears on the display or on an evidential printout other than those listed above, discontinue use of the instrument and contact a Type II responsible for maintaining the instrument.



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Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 3-D

Intox DMT Operation Guide

INSTRUMENTATION

The Intox DMT is a forensic breath-testing device that measures ethanol (commonly termed “alcohol”) and is based on the principles of infrared spectrometry. The DMT accurately determines the amount of alcohol in end-expiratory breath at the time the test is administered. Breath alcohol concentration (BrAC) is directly proportional to blood alcohol concentration (BAC). This is an established scientific truth of great benefit to law enforcement. BrAC and BAC need not be compared, since both are equally reliable and established measures of intoxication.

Following recommendations by the National Safety Council’s Committee on Alcohol and Other Drugs, the Department of Transportation established a conservative standard to legally define alcohol impairment while operating a motor vehicle. This standard is 0.080 grams of alcohol per 210 liters of breath (g/210 L) or per 100 milliliters of blood (g/100 mL). At this level of intoxication, there is well-founded agreement that any individual will be too impaired to drive safely.

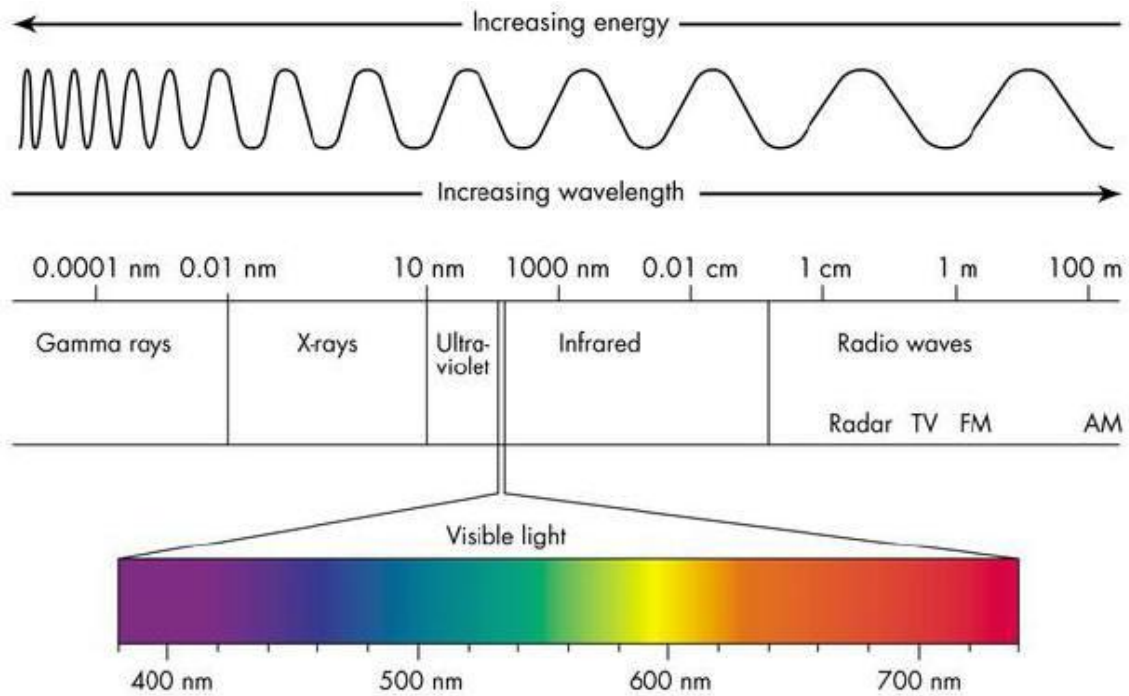
It is important to remember that an arrest is not made on the basis of a breath test alone. It also depends on other factors, such as weaving on the roadway, odor of intoxicants, physical tests, and all those observations that give an officer probable cause to believe the driver was under the influence of alcohol and/or drugs.

The DMT has been used for the purpose of forensic breath alcohol concentration measurement in a number of different states and in other countries. The Intox DMT has been tested and approved prior to its use for evidential testing in Missouri by both the National Highway Traffic Safety Administration (NHTSA) and the Missouri Department of Health and Senior Services, and is listed on both the NHTSA Conforming Products List and in Missouri’s Regulations 19 CSR 25-30.050, Approved Breath Analyzers.

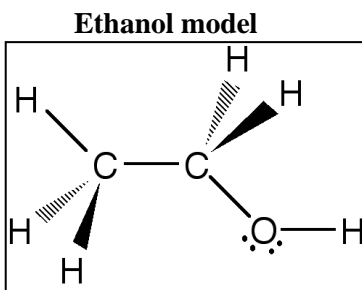
INFRARED SPECTROMETRY

The basis of infrared breath analysis is the absorption of infrared energy by alcohol molecules in a breath specimen. Infrared radiation is a portion of the electromagnetic spectrum. Infrared wavelengths are longer than visible light and are not visible to the human eye. Spectrometry, an analytical method that measures the absorption of radiant energy by a substance, is widely used in the scientific community.

THE ELECTROMAGNETIC SPECTRUM



ETHANOL AND INFRARED ENERGY



The ethanol molecule is composed of two carbon atoms, six hydrogen atoms, and one oxygen atom that are held together in a fixed order by chemical bonds. These chemical bonds absorb infrared energy in a specific and consistent manner. The specific wavelengths absorbed and the absorption pattern are unique, similar to a fingerprint, for a given molecule such as ethanol. The amount of infrared energy absorbed is proportional to the amount of ethanol present in a breath sample.

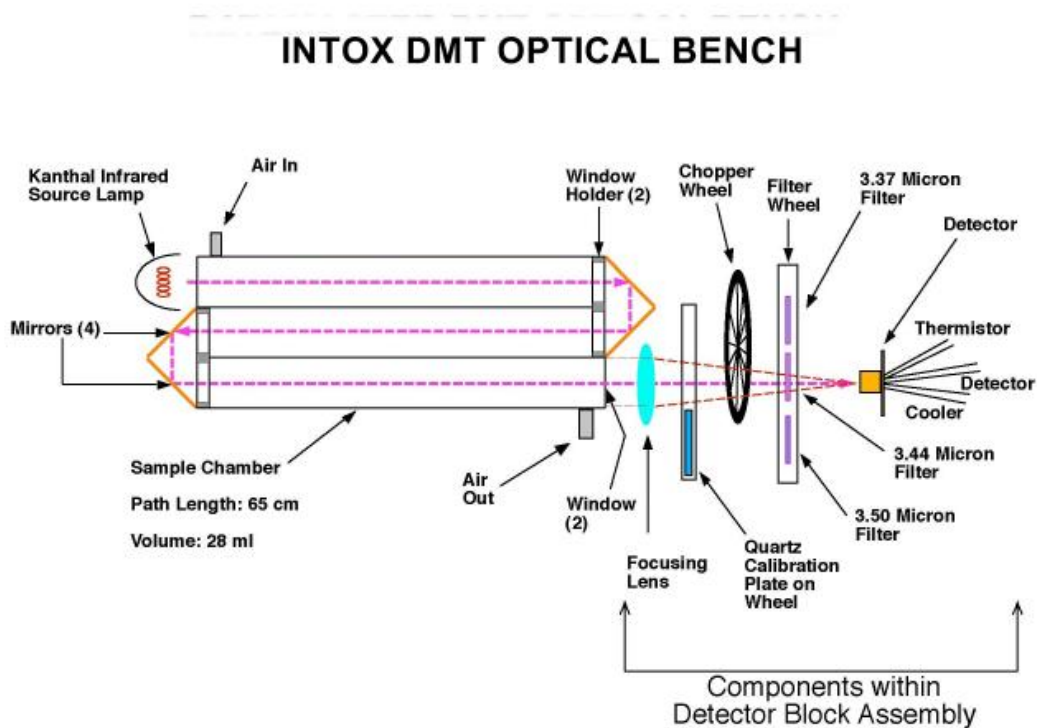
DETERMINATION OF BREATH ALCOHOL CONCENTRATION

The Intox DMT uses a law of chemistry and physics known as the Beer-Lambert law to determine the alcohol concentration in a breath sample. The Beer-Lambert law states that the amount of energy absorbed by a particular substance is directly proportional to the number of absorbing molecules in the sample. The amount of infrared energy absorbed in a breath sample is proportional to the amount of ethanol present in a breath sample introduced into the instrument sample chamber.

The breath sample enters the sample chamber of the DMT where an infrared beam of light interacts with any ethanol present (see schematic diagram below). The amount of infrared energy absorbed in a breath sample is converted to an electrical equivalent (voltage). This change in voltage is processed in the DMT's Central Processing Unit (CPU) to determine the subject's breath alcohol concentration (BrAC). The DMT automatically monitors breath flow, breath volume, and changes in the breath alcohol concentration to ensure a valid sample is obtained. The sample chamber of the DMT is maintained at a temperature (approximately 50 °C) to prevent condensation. Once the sample has been accepted, it is checked for the presence of interfering substances.

The Intox DMT reports the measured alcohol concentration in grams of alcohol per 210 liters of breath, as specified by Missouri statute.

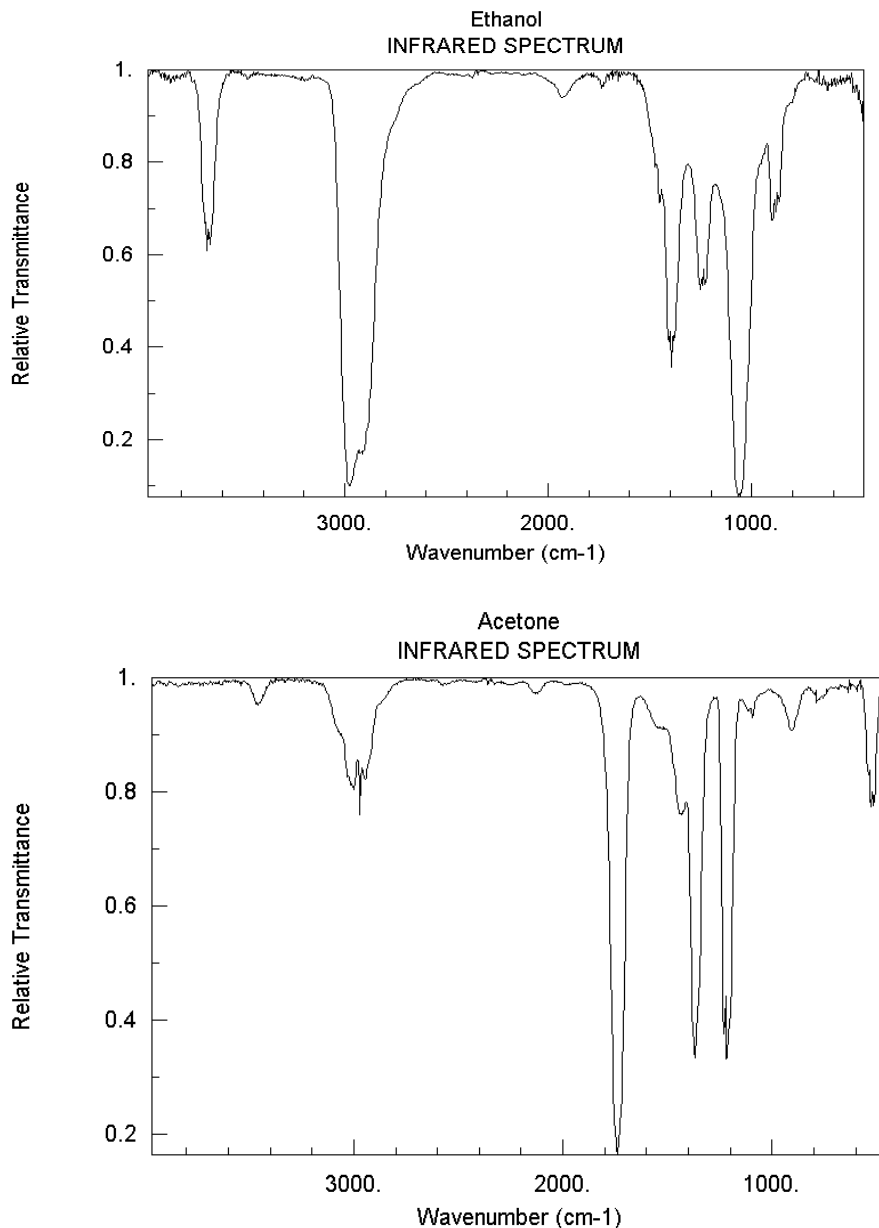
Schematic Diagram of Intox DMT Optical Bench



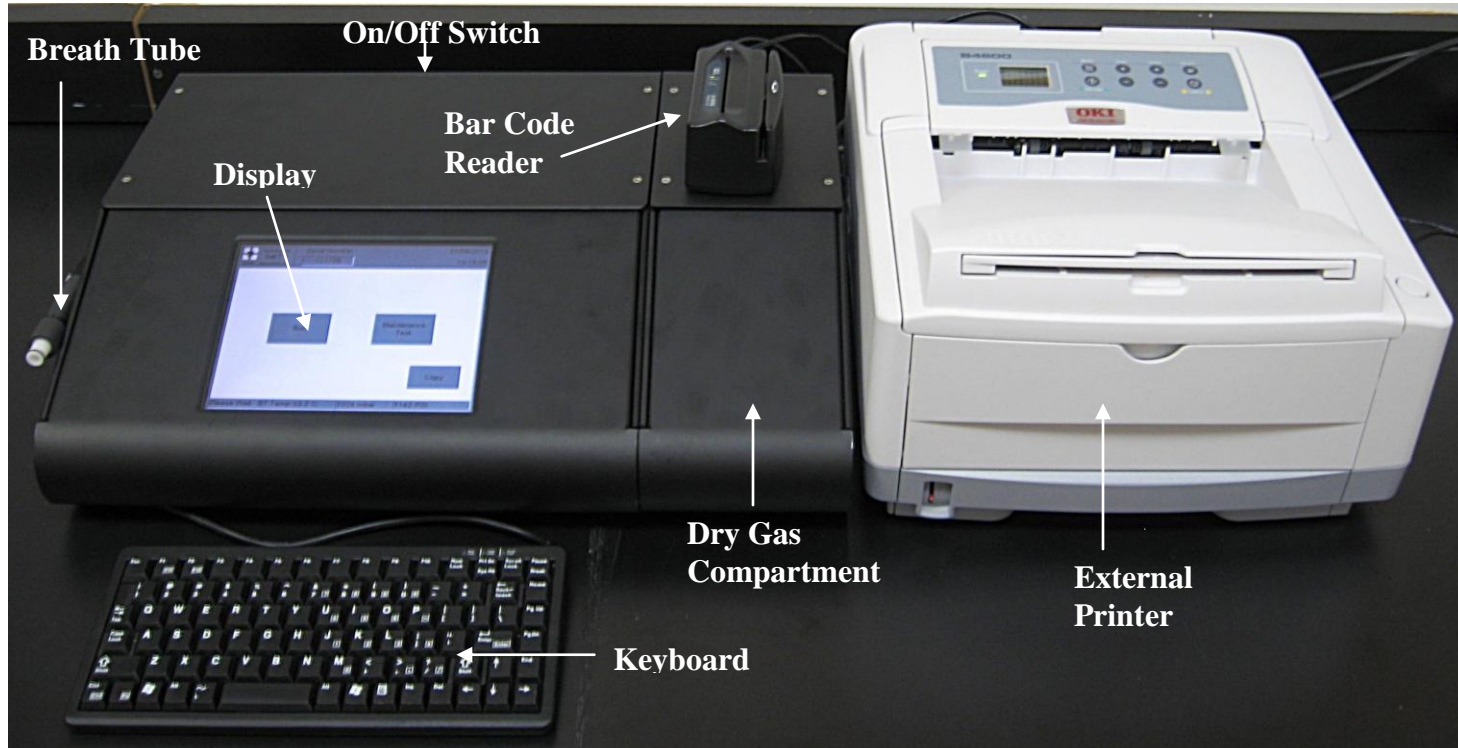
SPECIFICITY

The Intox DMT uses three wavelengths of infrared energy to achieve specificity for the analysis of ethanol. Some substances, such as acetone, also absorb infrared energy at these same wavelengths. However, no compound consistent with normal human breath will have the same ratio of absorption at these three wavelengths of infrared energy as ethanol. When the DMT detects these differing absorption ratios, it invalidates the test due to the presence of an interfering substance, displays **INTERFERENCE DETECTED**, and prints **INTERFERENCE DETECTED** on the Test Record. The DMT will not identify or measure the amount of the interfering substance. It is important to show that acetone is not present since it could be found in the breath of someone in a state of ketosis, such as an untreated diabetic or someone on a prolonged fast.

INFRARED SPECTRUMS OF ETHANOL AND ACETONE



INTOX DMT DIAGRAM



The **breath tube** is the heated, reinforced plastic tube on the right rear side of the instrument that functions as the transport mechanism for breath samples from the testing subject to the instrument. It is heated to prevent condensation of water vapor. All breath samples and the room air used in the air blank sequences are directed to the sample chamber through this tube. The breath tube for the DMT also acts as the RFI (radio frequency interference) antenna, detecting RFI around the instrument.

The **display** is a touch-screen interface that communicates information and instructions between the instrument and the operator.

The **On/Off switch** on the rear of the instrument turns the Intox DMT on or off.

The **Bar Code Reader** reads operator ID cards as well as subject drivers' licenses to aid operators in the speedy and accurate transfer of information to the instrument during a breath test sequence. *(Use is optional)*

The **keyboard** is used for data entry. Information entered via the keyboard is stored in the instrument's electronic memory and printed.

The **Dry Gas Compartment** is the secure storage compartment integrated within the instrument for storage of a compressed gas cylinder. *(Use is optional)*

The **External Printer** is used to print all test data from the instrument. *(Actual printers used may vary)*

ADMINISTERING A SUBJECT TEST

To administer a subject test on the DMT in Missouri, Form #11, “Blood Alcohol Test Report - Intox DMT” must be completed. This form will be completed automatically by the DMT during the breath test sequence, and a printed and signed copy of the form will be printed at the end of the test sequence.

- The first step of the operational checklist is an examination of the subject’s mouth. This examination can be performed in one of two ways: The officer can perform a limited visual examination of the subject’s mouth, or the officer can ask the subject whether they have any substances in their mouth. Substances are defined as solid or liquid foreign matter, but does not include dentures, dental work, studs, piercings, or tongue jewelry. Once this examination has been completed, the officer may begin the observation period.
- An officer with a valid Type II or Type III permit must observe the subject for a minimum of fifteen (15) minutes. The officer must remain close enough to the subject during the observation period to reasonably ensure, using the senses of sight, hearing, or smell, that the test subject does not smoke, vomit, or have any oral intake. While the officer must remain close enough to the subject to do this, direct observation is not necessary ensure the test validity or accuracy. The permit holder should carefully observe the subject during both the fifteen-minute observation period as well as while the subject is providing his/her breath sample into the instrument, so that the subject’s actions, demeanor, and behavior can be documented.
- Assure that the instrument is turned on. If it is not, turn it on and allow it to warm up (approximately 30 minutes). The instrument is ready to run a test when the bottom of the display shows “Ready <Push Run>”.
- When the instrument is ready to take a subject sample and after the mouth examination and 15 minute observation period have been performed, push the **Run** button on the display.
- The instrument will first display “Scan Operator’s Card?” followed by “Scan Driver’s License?” If you are using a card reader, insert the Operator Card and/or subject’s driver’s license when prompted. Otherwise, answer “No” to the questions and fill in the test fields manually.

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES BLOOD ALCOHOL TEST REPORT - INTOX DMT				FORM #11
LOCATION OF INSTRUMENT	INSTRUMENT SERIAL NUMBER	DATE OF TEST	NAME OF TEST	
SUBJECT NAME	DATE OF BIRTH			
SEX	SUBJECT DRIVER'S LICENSE NUMBER	STATE		
OFFICER'S OFFICER ID	OFFICER'S OFFICER ID			
OFFICER	OFFICER PERMIT	PERMIT EXPIRES		
OPERATIONAL CHECKLIST: INTOX DMT				
<input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.				
<input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time. If vomiting occurs, start over with the 15 minute observation period.				
<input type="checkbox"/> 3. Assure that the power switch is ON and the screen is displaying "READY <PUSH RUN>".				
<input type="checkbox"/> 4. Press the Run button on the display screen.				
<input type="checkbox"/> 5. Enter subject and officer information.				
<input type="checkbox"/> 6. When display reads "Please Blow" and gives audible beep, insert mouthpiece and take the subject's breath sample.				
SUBJECT TEST RESULTS				
COMMENTS				
CERTIFICATION BY OPERATOR				
As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:				DATE
<input type="checkbox"/> 1. There was no deviation from the procedure approved by the department.				
<input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly.				
<input type="checkbox"/> 3. I am authorized to operate the instrument.				
<input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this test was being conducted.				
SIGNATURE OF OPERATOR				DATE
INSTRUMENT ID				DATE
<small>AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER Service is provided to all on an equal and nondiscriminatory basis.</small>				

The DMT will now display the screen shown on the right. The officer should double-check the accuracy of all fields filled in by information supplied via the card reader, and use the keyboard to type in answers to all fields not already completed.

The fields to be completed are:

- Subject Name
- Subject License # and State Licensed
- Date of Birth
- Gender
- Operator Name
- Operator Permit # and Expiration Date
- Arresting Officer Name
- Arresting Officer ID
- Arrest Time

The screenshot shows a data entry form with the following fields:

- Subject Information:** Name (F/M/L) with boxes for SUBJECT FIRST, M, and SUBJECT LAST; License # QW123456TY12; State Licensed OH; Date of Birth 09/09/2050; Gender M.
- Operator Information:** Name (F/M/L) with boxes for OPERATOR FIRST, M, and OPERATOR LAST; Permit # ERTY1234567890-11223344556; Exp. Date 09/09/2011; a checkbox for "Operator Was Observer" (unchecked).
- Arrest Information:** Name (F/M/L) with boxes for ARRESTING FIRST, M, and ARRESTING LAST; Officer ID 4567890QWERTY1234-1122112; Arrest Time 11:06.
- Observation Information:** Name (F/M/L) with boxes for OBSERVER FIRST, M, and OBSERVER LAST.

Buttons for "Cancel" and "OK" are located at the bottom right of the form.

There is also a checkbox within the Operator Information portion of the display concerning whether the operator also performed the 15 minute observation period. By default, this box is checked, and the Operator Name is auto-filled in the Observation Information portion of the display. However, if the operator was not the observer, uncheck this box. This will then allow the operator to fill in the correct observer's name.

After determining that all the information is correct, press the **OK** button.

During the automated test sequence the instrument display will show the following series of messages.

PURGE

All chambers and internal plumbing are cleansed of any residual substances by ambient (surrounding) air that is pulled in through the Breath Tube and pumped throughout the instrument by an internal pump. “.000” will appear on the display if the chamber is clear.

AMBIENT CHECK AND AMBIENT ZEROING

After the pump stops, the DMT determines zero references based on the ambient air in the Sample Chamber. During this cycle all three of the specific wavelength filters are inserted into the infrared light path to establish zero references at each wavelength.

BLANK CHECK

A measurement is taken after the “Ambient Zeroing”. “.000” will appear on the display if no contamination was detected.

INTERNAL STANDARD CHECK

During this cycle a quartz plate is inserted into the infrared path to assure that the accuracy of the DMT has not changed since it was last calibrated. Each Intox stores in memory the exact infrared absorption value of this quartz standard at the time of calibration. The instrument measures the absorption of the quartz plate and compares this measured value with the value obtained at calibration. The two values must agree within prescribed limits or the test sequence will be aborted.

After the DMT has successfully completed the preceding test sequence, the instrument will display: "Did the subject refuse?" If the subject refuses, press the Yes box on the screen. The instrument will print "**REFUSED**" on the blood alcohol test report and terminate the test sequence. If the subject is willing to take the breath test, press the No box.

6. The instrument will display "PLEASE BLOW" and emit a beeping sound. Insert a mouthpiece into the Breath Tube and have the subject blow at this time.

The officer should advise the subject as follows: "Place your mouth on the mouthpiece and blow long and steady into the tube until I tell you to stop."

The breath sample has to meet the following three criteria to assure the collection of an adequate sample of end-expiratory breath. These criteria are:

- a. A minimum single breath sample volume of at least 1.5 liters must be delivered.
- b. A minimum breath flow rate of 3 liters per minute must be maintained until the minimum breath volume has been delivered.
- c. The breath alcohol concentration must show that it has reached end-expiratory air (rate of change in concentration must be within prescribed limits).

During breath sampling, a horizontal green bar is displayed in the bottom right-hand portion of the screen. The first two sample criteria have been met when the green bar crosses the gray line in the middle of the display box. After the flow rate has decreased to less than 3 liters per minute, the instrument will finish the analysis of the breath sample.

The DMT allows a two-minute window for the completion of a breath test. If a breath test meeting the necessary criteria has not been given during this time period, the DMT will ask again "**SUBJECT REFUSE?**" and display both "YES" and "No" boxes on the screen. If the subject is refusing to take the test, press the "Yes" box on the screen and the instrument will abort the testing sequence and will print "**REFUSED**" on the blood alcohol test report. If the subject did not appear to be refusing to take the test and is willing to try and take the test again, press the "No" box on the screen and a status code of "**INCOMPLETE**" will print on the test report.

After the subject has finished giving a valid breath sample, the DMT will display “**ANALYZING**”. Remove the mouthpiece from the Breath Tube before the instrument displays “**PURGING**” and allow the DMT to complete the rest of the automated test sequence. Throw the mouthpiece away. The DMT will purge the Sample Chamber at this point and the take another BLANK TEST.

Once the breath test and all operational steps performed by the instrument are completed and all test results have been accepted by the instrument, the DMT will ask the operator to complete the operator certifications on the bottom of the test report form. Following test certification, the operator will sign the report form on the display of the DMT using a stylus. If a witness to the test was present, they can also sign the display after the operator has signed it.

The last item to appear during the test sequence is the “Remarks/Comments” box. This provides an opportunity for the operator to add any additional information to the BAC test record they feel is relevant.

The completed blood alcohol test report will then print from the instrument’s external printer. A signed copy of the last maintenance report will also print directly after the test report.

Good hygiene suggests that a new mouthpiece be used for each separate breath test sequence performed on a test subject.

INTOX DMT STATUS CODES

Occasionally, a message, or status code, will appear on the screen and/or on an evidential ticket printout. The following is a list of the messages that will appear on the display and/or on an evidential ticket printout. If one of the following messages is received while operating the DMT, please follow the recommended action.

STATUS CODE	CORRECTIVE ACTION
MAINTENANCE TEST REQUIRED	Out of service. Contact Type II and go to another instrument.
INCOMPLETE	A complete and valid breath test was not given during sampling. Try one or more tests. An additional observation period is not warranted.
INVALID SAMPLE	Conduct new oral examination and new observation period. Try one or more tests. If unsuccessful, request blood sample under implied consent.
RFI DETECTED	Find and remove source of radio transmission. Rerun test.
INTERFERENCE DETECTED	Try one more test. If interference is detected on the second test, request blood sample under implied consent.
AMBIENT FAIL	Check for odors, check to see if mouthpiece in breath tube, try one or more tests. If unsuccessful, contact Type II.
PUMP ERROR	Check to see if mouthpiece in breath tube, try one or more tests. If unsuccessful, contact Type II.
SUCKBACK ERROR	Subject sucked air through the breath tube during sampling. Reinstruct on the correct method for providing a sample and try one or more tests. If unsuccessful, request blood sample under implied consent.
BLANK ERROR	Check to see if mouthpiece in breath tube, try one or more tests. If unsuccessful, contact Type II.
FILTER WHEEL ERROR	Try one or more tests. If unsuccessful, contact Type II.
FILTER (1, 2 or 3) WON'T ZERO	Try one or more tests. If unsuccessful, contact Type II.
DETECTOR OVERFLOW	Out of service. Contact Type II and go to another instrument.
INTERNAL STANDARD ERROR	Out of service. Contact Type II and go to another instrument.
SAMPLE CHAMBER TEMPERATURE CHECK	Out of service. Contact Type II and go to another instrument.
BREATH TUBE TEMPERATURE CHECK	Out of service. Contact Type II and go to another instrument.

If any status code appears on the display or on an evidential ticket other than those listed above, discontinue use of the instrument and contact a Type II responsible for maintaining the instrument.



Missouri Department of Health and Senior Services

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Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 3-E

Intoxilyzer 8000 Operation Guide

INSTRUMENTATION

The Intoxilyzer 8000 is a forensic breath-testing device that measures ethanol (commonly termed “alcohol”) and is based on the principles of infrared spectrometry. The Intoxilyzer 8000 accurately determines the amount of alcohol in end-expiratory breath at the time the test is administered. Breath alcohol concentration (BrAC) is directly proportional to blood alcohol concentration (BAC). This is an established scientific truth of great benefit to law enforcement. BrAC and BAC need not be compared, since both are equally reliable and established measures of intoxication.

Following recommendations by the National Safety Council’s Committee on Alcohol and Other Drugs, the Department of Transportation established a conservative standard to legally define alcohol impairment while operating a motor vehicle. This standard is 0.080 grams of alcohol per 210 liters of breath (g/210 L) or per 100 milliliters of blood (g/100 mL). At this level of intoxication, there is well-founded agreement that any individual will be too impaired to drive safely.

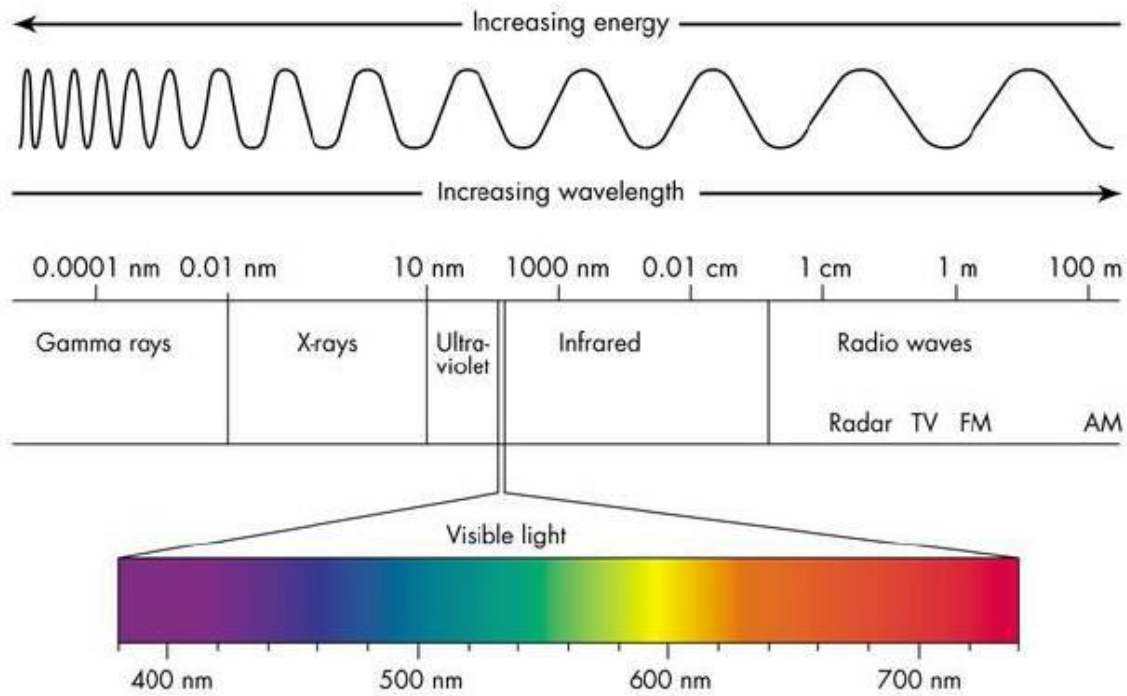
It is important to remember that an arrest is not made on the basis of a breath test alone. It also depends on other factors, such as weaving on the roadway, odor of intoxicants, physical tests, and all those observations that gave you probable cause to believe the driver was under the influence of alcohol and/or drugs.

The Intoxilyzer 8000 has been used for the purpose of forensic breath alcohol concentration measurement in at least 18 different states and various other countries. The Intoxilyzer 8000 has been tested and approved prior to its use for evidential testing in Missouri by both the National Highway Traffic Safety Administration (NHTSA) and the Missouri Department of Health and Senior Services, and is listed on both the NHTSA Conforming Products List and in Missouri’s Regulations 19 CSR 25-30.050, Approved Breath Analyzers.

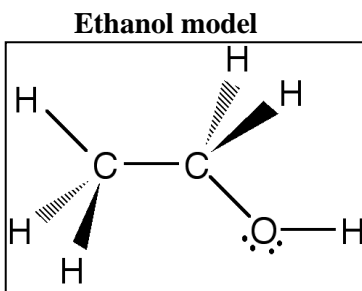
INFRARED SPECTROMETRY

The basis of infrared breath analysis is the absorption of infrared energy by alcohol molecules in a breath specimen. Infrared radiation is a portion of the electromagnetic spectrum. Infrared wavelengths are longer than visible light and are not visible to the human eye. Spectrometry, an analytical method that measures the absorption of radiant energy by a substance, is widely used in the scientific community.

THE ELECTROMAGNETIC SPECTRUM



ETHANOL AND INFRARED ENERGY



The ethanol molecule is composed of two carbon atoms, six hydrogen atoms, and one oxygen atom that are held together in a fixed order by chemical bonds. These chemical bonds absorb infrared energy in a specific and consistent manner. The specific wavelengths absorbed and the absorption pattern are unique, similar to a fingerprint, for a given molecule such as ethanol. The amount of infrared energy absorbed is proportional to the amount of ethanol present in a breath sample.

DETERMINATION OF ALCOHOL CONCENTRATION

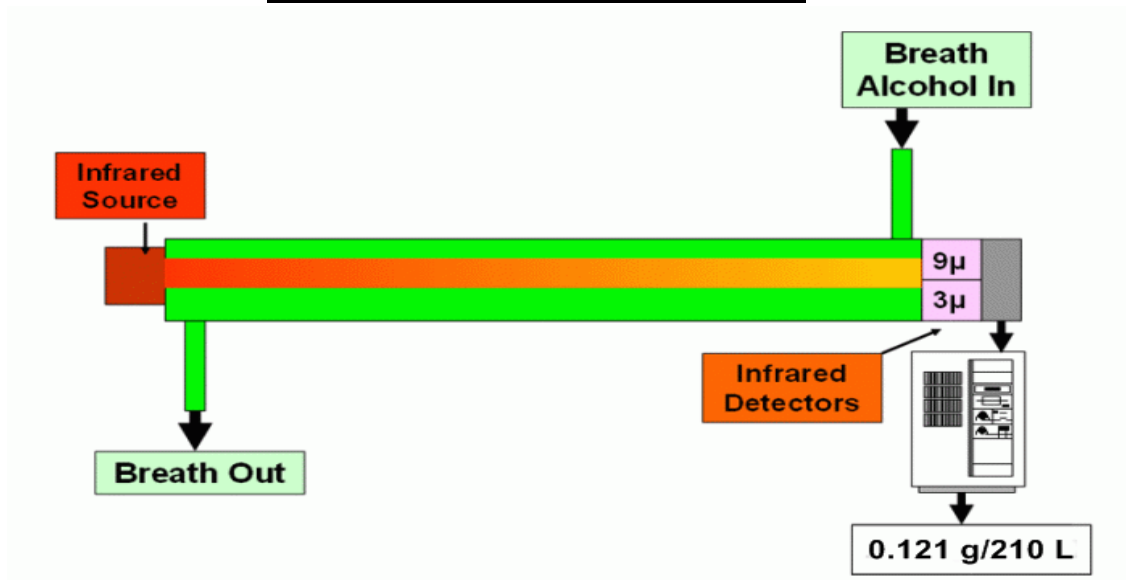
The Intoxilyzer 8000 uses a law of chemistry and physics known as the Beer-Lambert law to determine the alcohol concentration in a breath sample. The Beer-Lambert law states that the amount of energy absorbed by a particular substance is proportional to the number of absorbing molecules in the sample. The amount of infrared energy absorbed on a breath alcohol instrument is proportional to the amount of ethanol present in a breath sample introduced into the instrument sample chamber.

The breath sample enters the sample chamber of the 8000 where an infrared beam of light interacts with any ethanol present (see schematic diagram below). The amount of infrared energy absorbed in a breath sample is converted to an electrical equivalent (voltage). This voltage measurement is then converted into a BrAC in the 8000's Central Processing Unit (CPU). The 8000 automatically monitors breath flow rate, breath volume, and changes in the breath alcohol concentration to ensure a valid sample is obtained. The sample chamber of the Intoxilyzer 8000 is maintained at a steady temperature (approximately 47 °C) to prevent condensation.

If an improper environmental testing condition, an improper instrument testing condition, or if an operational mistake is detected at any point during the test, the Intoxilyzer 8000 will stop the analysis and invalidate the test. The reason for the invalidation will be displayed and printed; no analytical results will be printed.

The Intoxilyzer 8000 reports the measured alcohol concentration in grams of alcohol per 210 liters of breath, as specified by Missouri statute.

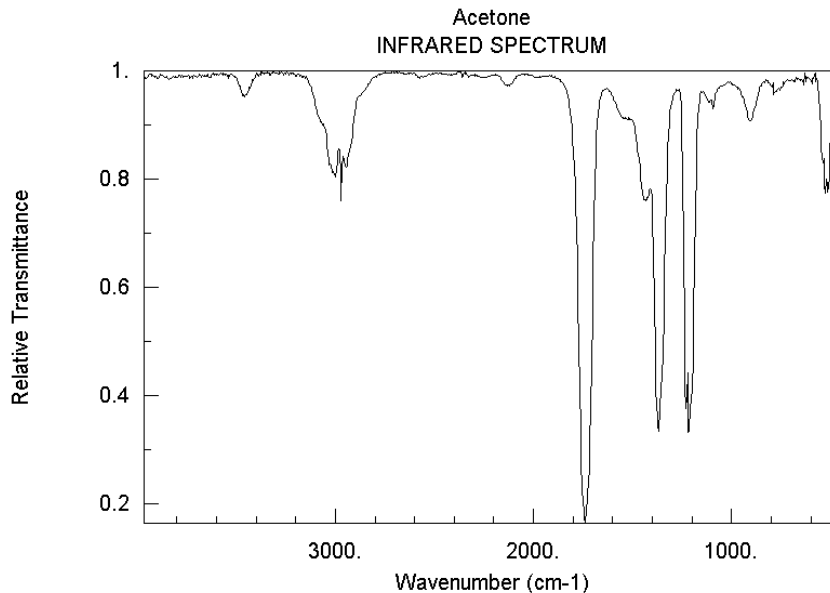
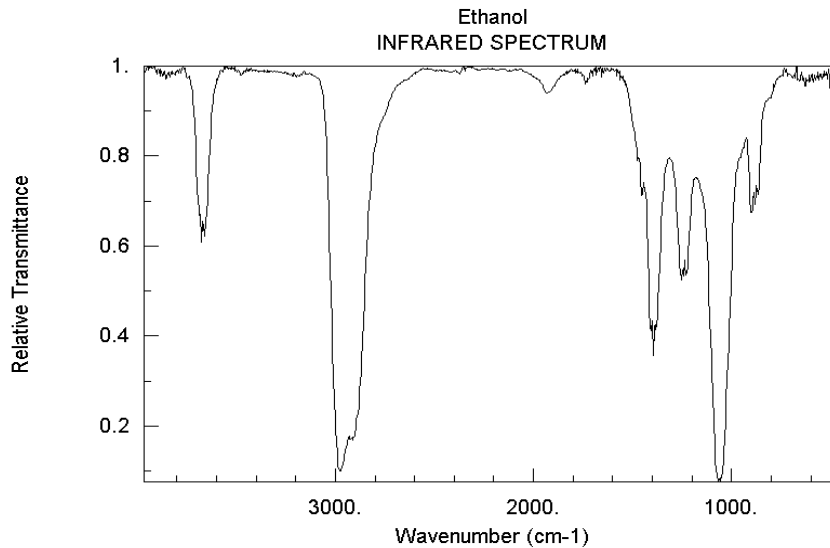
Diagram of Intoxilyzer 8000 Optical Bench



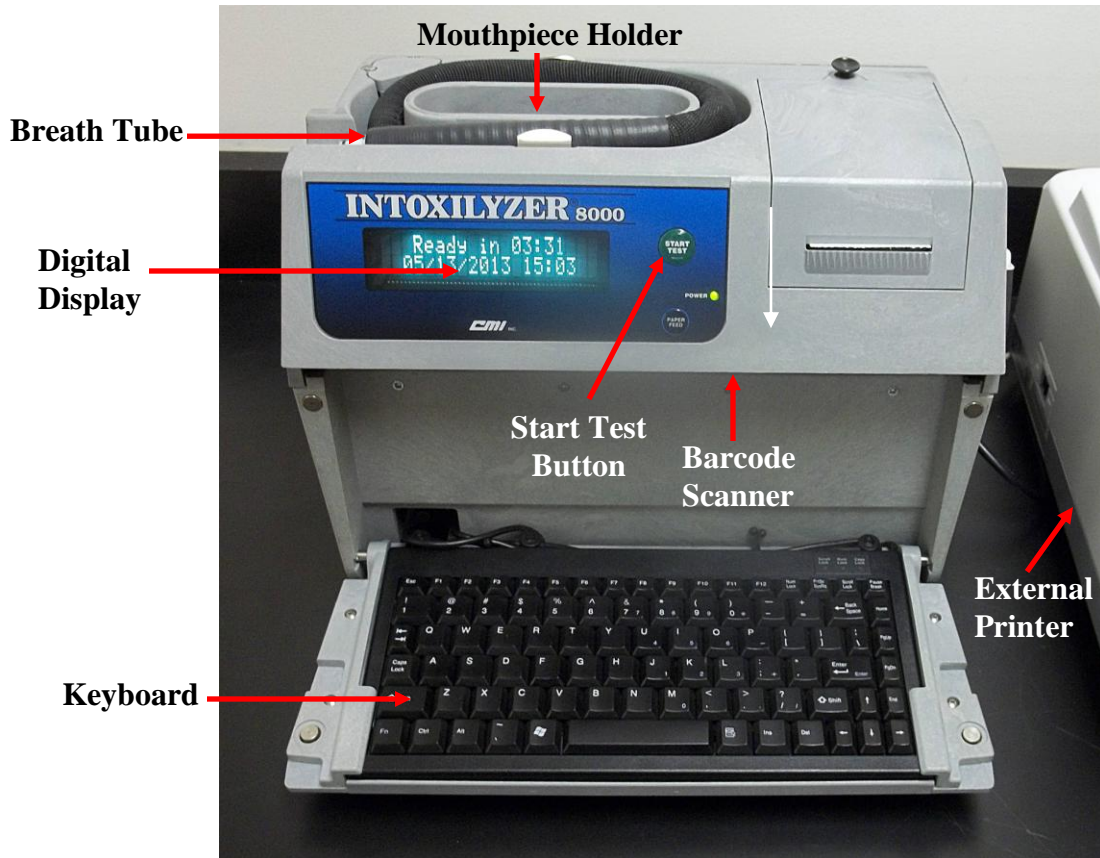
SPECIFICITY

The Intoxilyzer 8000 uses two different wavelengths of infrared energy to achieve specificity for the analysis of ethanol. Other substances, such as acetone, also absorb infrared energy at some of the same wavelengths as ethanol. However, no compound consistent with normal human breath will have the same ratio of absorption at these wavelengths of infrared energy as ethanol. When the Intoxilyzer 8000 detects these differing absorption patterns, it will invalidate the test due to the presence of an interfering substance, display “**INTERFERENT DETECT**”, and print “**INTERFERENT DETECT**” on the Test Record. The Intoxilyzer 8000 will not identify or measure the amount of the interfering substance. It is important to show that acetone is not present since it could be found in the breath of someone in a state of ketosis, such as an untreated diabetic or someone on a prolonged fast.

INFRARED SPECTRUMS OF ETHANOL AND ACETONE



INTOXILYZER 8000 EXTERNAL COMPONENTS



The **Digital Display** communicates information and instructions from the instrument to the operator.

The **Breath Tube** is the heated, reinforced plastic tube located on the top of the instrument that functions as the transport mechanism for breath samples from the testing subject to the instrument. It is heated to prevent condensation of water vapor. All breath samples and the room air used in the air blank sequences are directed to the sample chamber through this tube.

The **Start Test Button**, which is the green button in the middle of the instrument, starts a breath test sequence.

The **Barcode Scanner**, located underneath the display, is used for scanning operator permit cards and subject driver licenses.

The **Mouthpiece Holder** is located on the top of the instrument and is heated so that mouthpieces can be kept at a comfortable temperature for test subjects.

The **Keyboard** is used for data entry and folds up and locks in place to help make the Intoxilyzer 8000 more portable.

The **External Printer** is used to print all test data from the instrument. (*Actual printer used may vary*)

ADMINISTERING A SUBJECT TEST

To administer a subject test on the Intoxilyzer 8000 in Missouri, Form #12, “Blood Alcohol Test Report – Intoxilyzer 8000” must be completed. This form will be completed automatically by the 8000 during the breath test sequence, and a copy of the form will be printed at the end of the test sequence.

1. The first step of the operational checklist is an examination of the subject’s mouth. This examination can be performed in one of two ways: The officer can perform a limited visual examination of the subject’s mouth, or the officer can ask the subject whether they have any substances in their mouth. Substances are defined as solid or liquid foreign matter, but does not include dentures, dental work, studs, piercings, or tongue jewelry. Once this examination has been completed, the officer may begin the observation period.

STATE OF MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES BLOOD ALCOHOL TEST REPORT – INTOXILYZER 8000				FORM #12
LOCATION OF INSTRUMENT	INSTRUMENT SERIAL NUMBER	DATE OF TEST	TIME OF TEST	
SUBJECT NAME		DATE OF BIRTH		
SEX	SUBJECT DRIVER'S LICENSE NUMBER	STATE		
ARRESTING OFFICER		ARRESTING OFFICER ID		
OPERATOR	OPERATOR PERMIT	PERMIT EXPIRATION DATE		
OPERATIONAL CHECKLIST: INTOXILYZER 8000				
<input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period. <input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period. <input type="checkbox"/> 3. Assume that the power switch is ON and the screen is displaying "Ready Mode". <input type="checkbox"/> 4. Press the START TEST button. <input type="checkbox"/> 5. Enter the subject and officer information. <input type="checkbox"/> 6. When display reads "Please Blow Until Tone Stops/RT", insert mouthpiece and take the subject's breath sample.				
SUBJECT TEST RESULTS				
COMMENTS 				
CERTIFICATION BY OPERATOR				BAC
As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:				
<input type="checkbox"/> 1. There was no deviation from the procedure approved by the department. <input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly. <input type="checkbox"/> 3. I am authorized to operate the instrument. <input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this test was being conducted.				
SIGNATURE OF OPERATOR		DATE		
WITNESS (IF ANY)		DATE		
MO 585-2022 (4-12)		EQUICAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis.		LAB 1018

2. An officer with a valid Type II or Type III permit must observe the subject for a minimum of fifteen (15) minutes. The officer must remain close enough to the subject during the observation period to reasonably ensure, using the senses of sight, hearing, or smell, that the test subject does not smoke, vomit, or have any oral intake. While the officer must remain close enough to the subject to do this, direct observation is not necessary ensure the test validity or accuracy. The permit holder should carefully observe the subject during both the fifteen-minute observation period as well as while the subject is providing his/her breath sample into the instrument, so that the subject’s actions, demeanor, and behavior can be documented.
3. Assure that the power switch is ON and the screen is displaying “READY MODE”. If the 8000 is not on, turn it on and allow it to warm up (approximately 15 – 20 minutes). Make sure that the printer is turned on as well.

If the Intoxilyzer 8000 screen is displaying “STANDBY MODE”, press the start button. It takes approximately two minutes for the 8000 to move from ‘standby’ to ‘ready’. The first minute warms up system components. The second minute runs a system diagnostic check.

Once the 8000 is ready to conduct tests, the scrolling display will show the “READY MODE” message.

4. At this point, press the Start Test button to initiate the test sequence.

5. To begin entering officer and subject data, the instrument will first display “Please scan ID or press enter”. If you are using an Operator Card, place the card in the optical path of the reader and it will automatically input the operator’s information. Otherwise, hit the enter button on the display and complete the following questions.
 - a. Operator Name:
 - b. Operator Permit Number:
 - c. Permit Expiration Date: *(mm/dd/yyyy) format*

At this point the operator has manually entered the same information that would have been read from an operator card. All operators will then be asked the following questions:

- d. Arresting Officer Name:
- e. Arresting Officer ID Number:
- f. Witness Name *(If there was a witness to the test)*

The instrument will next display “Please scan DL or press enter”. If you have the subject’s driver’s license, place the license with the bar code in the optical path of the reader and it will automatically input the subject’s information. Otherwise, hit the enter button on the display and complete the following questions.

- g. Subject Name:
- h. Subject Date of Birth: *(mm/dd/yyyy) format*
- i. Sex (M/F): *(M/F) format*
- j. Subject Drivers License Number:
- k. DL State of Issue:

The last question that the display will prompt during data entry is: “REVIEW DATA? Y/N”. If the officer wishes to correct a mistake made during the data entry, or merely wishes to review the data, hit Y and then the ENTER button on the keyboard and the instrument will send the officer back through each of the questions a – k listed above. Once the officer is satisfied with the data, he should hit the N and then the ENTER button on the keyboard at this stage and the instrument will move out of data entry and into the automated test sequence.

During the automated test sequence the instrument display will show the following series of messages.

PURGING and AIR BLANK

All chambers and internal plumbing are cleansed of any residual substances by ambient (room) air that is pulled in through the Breath Tube and pumped throughout the instrument by an internal pump. This is done before the diagnostic check, before a subject sample and after a subject sample to ensure that the instrument is clean of any residual alcohol from previous tests. After the initial purging, the 8000 measures the amount of infrared light that is striking the detector when only room air is in the sample chamber. It uses this to establish a “zero reference” point.

DIAGNOSTIC CHECK

The Intoxilyzer 8000 then runs a diagnostic check to ensure that all instrument systems are operating correctly. After this diagnostic check, a second Air Blank is taken.

INTERNAL REFERENCE CHECK

The last part of the automated test sequence prior to a subject giving a breath sample is the internal reference check. The internal reference check ensures that the measured signal is consistent with the reference created at the time of calibration.

6. After the Intoxilyzer 8000 has successfully cycled through these steps of the automatic test sequence, the instrument will display “PLEASE BLOW/R UNTIL THE TONE STOPS” initially, followed with the displayed message “PLEASE BLOW/R”, accompanied by an intermittent beeping tone. If the subject refuses, hit the “R” button on the keyboard. The instrument will print, “Subject Test Refused” on the BAC test report and terminate the test sequence. If the subject is not refusing to take the breath test, insert a mouthpiece into the Breath Tube and have the subject blow at this time.

The officer should advise the subject as follows: ***“Place your mouth on the mouthpiece and blow long and steady into the tube until I tell you to stop.”***

The breath sample has to meet the following three criteria to assure the collection of an adequate sample of end-expiratory (alveolar) breath. These criteria are:

- a. A minimum breath flow rate must be maintained until the minimum breath volume has been delivered.
- b. During the breath sample, the minimum flow rate must be maintained continuously for a minimum time and minimum sample volume.
- c. The breath alcohol concentration must show that it has reached end-expiratory air.

The Intoxilyzer 8000 allows a three-minute window for the completion of a breath test. If a complete breath sample has not been acquired by the end of the three minutes, the Intoxilyzer 8000 will print “DEFICIENT SAMPLE”.

After the subject has finished giving a valid breath sample and the breath flow rate decreases to below the sampling threshold, the instrument will finish the analysis of the breath sample. The instrument will then complete another “Air Blank”.

Once the breath test and all operational steps performed by the instrument are completed and all test results have been accepted by the instrument, the Intoxilyzer 8000 will then ask the operator to input any comments to be printed on the test report. The operator will then be asked to certify the test results by answering the operator certification questions both on the operational checklist as well as on the bottom of the BAC test report.

After the test certifications have been completed, the external printer of the Intoxilyzer 8000 will print both the BAC Test Report Form as well as an unsigned copy of the most recent maintenance report.

Good hygiene suggests that a new mouthpiece be used for each separate breath test performed on a test subject.

INTOXILYZER 8000 OPERATIONAL MESSAGES

Occasionally, a message, or status code, will appear on the screen and/or on a BAC Test Report. The following is a list of the messages that will appear on the display and/or on an evidential ticket printout. If one of the following messages is received while operating the Intoxilyzer 8000, please follow the recommended action.

DISPLAY MESSAGE	TEST-RECORD MESSAGE	EXPLANATION AND CORRECTIVE ACTION
DISABLED MODE	N/A	Out of service. Contact Type II and go to another instrument.
INVALID SAMPLE	INVALID SAMPLE	Check mouth, wait an additional 15 minutes, try one or more tests. If unsuccessful, request blood sample under implied consent.
INTERFERENT DETECT	INTERFERENT DETECT	Try one more test. If interference is detected on the second test, request blood sample under implied consent.
DEFICIENT SAMPLE	DEFICIENT SAMPLE	A complete and valid breath sample was not provided in the time allotted.
RFI DETECT	RFI DETECT	Find and remove source of radio transmission. Attempt to conduct another test.
AMBIENT FAIL	AMBIENT FAIL	Check for odors, check to see if mouthpiece was removed, try one or more tests. If unsuccessful, contact Type II.
PURGE FAIL	PURGE FAIL	Check for odors, check to see if mouthpiece was removed, try one or more tests. If unsuccessful, contact Type II.
NO SAMPLE GIVEN	NO SAMPLE GIVEN	No breath was provided by subject during the time allotted.
VOLTAGE/CURRENT FAILURE	VOLTAGE/CURRENT FAILURE	The instrument internal voltages are unstable. Please Contact a Type II and go to another instrument.

If any status code appears on the display or on a BAC Test Report other than those listed above, discontinue use of the instrument and contact a Type II responsible for maintaining the instrument.



Missouri Department of Health and Senior Services

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Gail Vasterling
Acting Director



Jeremiah W. (Jay) Nixon
Governor

BREATH ALCOHOL PROGRAM **TYPE III OPERATOR MANUAL**

SECTION 3-F

Intox EC/IR II Operation Guide

INSTRUMENTATION

The Intox EC/IR II is a forensic breath-testing device that measures ethanol (commonly termed “alcohol”) using an electrochemical cell, also known as a fuel cell. The EC/IR II accurately determines the amount of alcohol in end-expiratory breath at the time the test is administered. Breath alcohol concentration (BrAC) is directly proportional to blood alcohol concentration (BAC). This is an established scientific truth of great benefit to law enforcement. BrAC and BAC need not be compared, since both are equally reliable and established measures of intoxication.

Following recommendations by the National Safety Council’s Committee on Alcohol and Other Drugs, the Department of Transportation established a conservative standard to legally define alcohol impairment while operating a motor vehicle. This standard is 0.080 grams of alcohol per 210 liters of breath (g/210 L) or per 100 milliliters of blood (g/100 mL). At this level of intoxication, there is well-founded agreement that any individual will be too impaired to drive safely.

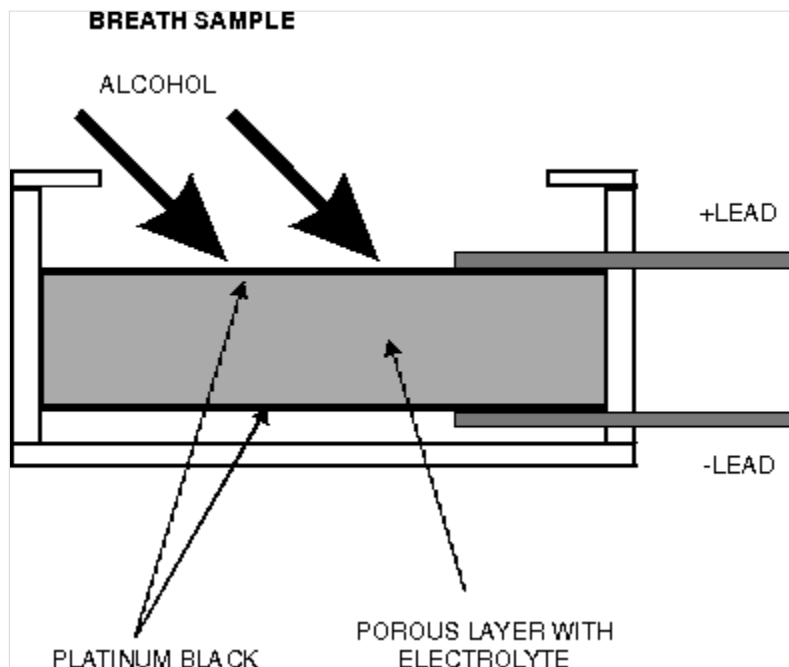
It is important to remember that an arrest is not made on the basis of a breath test alone. It also depends on other factors, such as weaving on the roadway, odor of intoxicants, physical tests, and all those observations that give an officer probable cause to believe the driver was under the influence of alcohol and/or drugs.

The EC/IR II has been used for the purpose of forensic breath alcohol concentration measurement in a number of different states and in other countries. The Intox EC/IR II has been tested and approved prior to its use for evidential testing in Missouri by both the National Highway Traffic Safety Administration (NHTSA) and the Missouri Department of Health and Senior Services, and is listed on both the NHTSA Conforming Products List and in Missouri’s Regulations 19 CSR 25-30.050, Approved Breath Analyzers.

ALCOHOL FUEL CELL TECHNOLOGY

In its simplest form, the alcohol fuel cell consists of a porous, chemically inert layer coated on both sides with platinum oxide (called platinum black). The manufacturer impregnates the porous layer with an acidic electrolyte solution, and applies platinum wire electrical connections to the platinum black surfaces. The fuel cell assembly is mounted in a case, which includes a gas inlet that allows a breath sample to be introduced. The basic configuration of an alcohol fuel cell is illustrated in Figure 1.

Figure 1. Basic Fuel Cell Configuration



DETERMINATION OF BREATH ALCOHOL CONCENTRATION

The chemical reaction that takes place in an alcohol fuel cell converts alcohol to acetic acid, water, and free electrons. When the top and bottom surfaces of the fuel cell are connected via an electrical circuit, current flows through this circuit to neutralize the charge created by the breakup of alcohol. The current created is a direct indication of the amount of alcohol consumed by the fuel cell. By measuring the amount of current, you can determine the amount of alcohol in the sample. The fuel cell produces a direct relationship between the amount of current generated from the alcohol oxidization reaction and the alcohol concentration in the breath sample.

The Intox EC/IR II also incorporates an infrared spectrophotometer which monitors the release of both alcohol and carbon dioxide during exhalation. Analyzing the release of these two chemicals using proprietary algorithms, the EC/IR II can detect sample irregularities occurring during exhalation due to mouth alcohol.

The Intox EC/IR II reports the measured alcohol concentration in grams of alcohol per 210 liters of breath, as specified by Missouri statute.

SPECIFICITY

Due to the nature of their construction, the alcohol fuel cell used in the Intox EC/IR II is highly specific for alcohol on the human breath. The following is an abbreviated list of substances tested by the University of Tennessee at Memphis to measure their response on the Alco-Sensor IV, which uses the same electrochemical cell as the Intox EC/IR II.

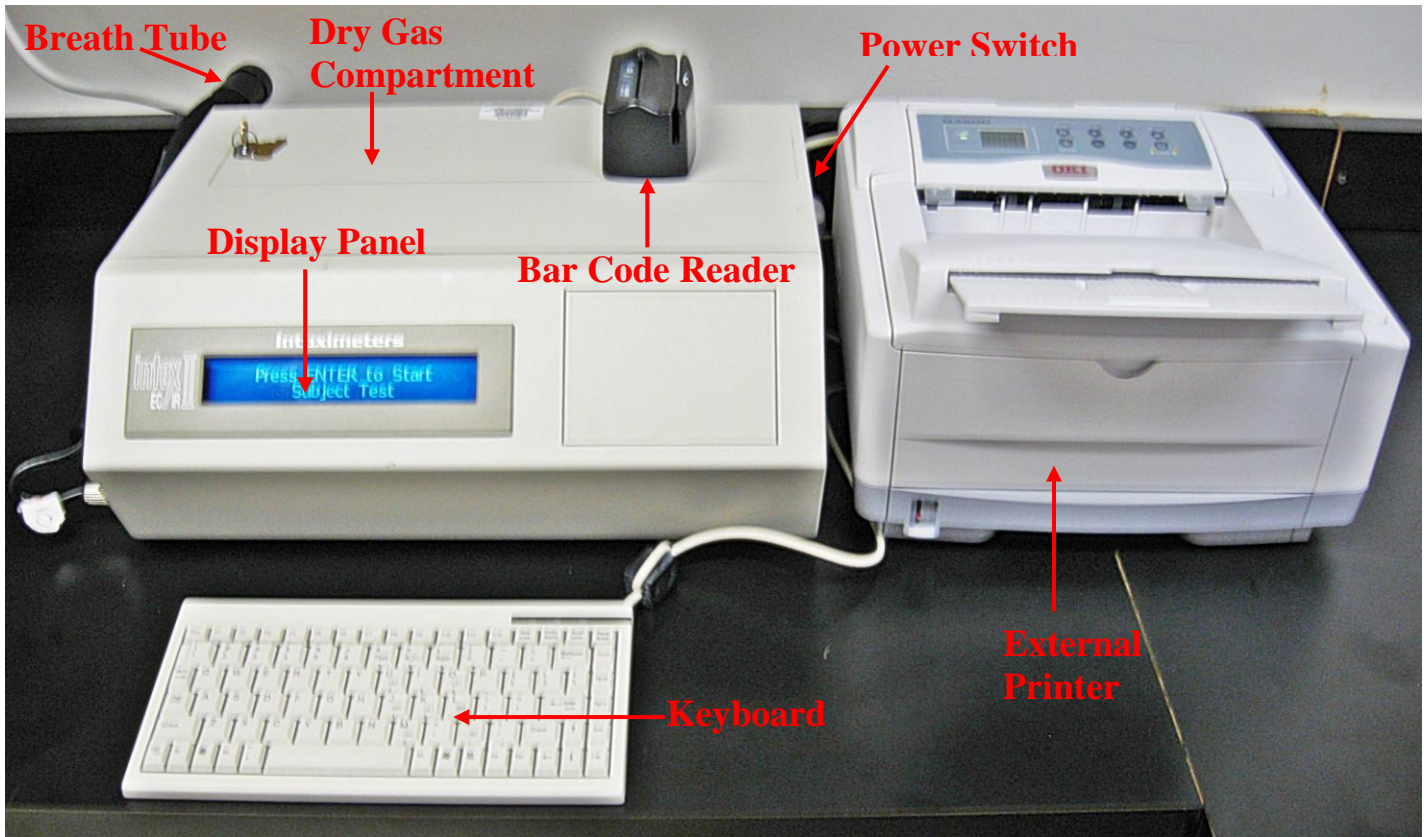
ALCO-SENSOR IV RESPONSE TO VARIOUS SUBSTANCES¹

Substance	Vapor Concentration (mg/l)	Alco-Sensor IV Response (gm/dl)
Acetaldehyde	0.1	0.002
Acetone	0.1	0.0
Benzene	0.05	0.0
2-Butanol	0.1	0.002
Cyclohexane	0.1	0.0
Diethylether	0.1	0.0
Ethanol	0.1	0.100
Ethylacetate	0.06	0.0
Gasoline	0.1	0.002
Isoprene	0.1	0.002
Isopropanol	0.06	0.005
Methane	0.1	0.0
Methanol	0.04	0.008
MEK	0.06	0.0
n-Pentane	0.1	0.0
n-Hexane	0.1	0.0
n-Octane	0.1	0.0
Mineral Spirits	0.1	0.0
Toluene	0.05	0.0
Trichlorethylene	0.1	0.0

Using proprietary algorithms, Intoximeters, Inc. achieves further specificity for ethanol over other substances, including other alcohols, by measuring differences in the reaction time of the substance reacting on the fuel cell compared to the known reaction time of ethanol on the fuel cell. When the EC/IR II detects a reaction time other than the one expected, it invalidates the test, displays **INTERFERING SUBSTANCE**, and prints **INTERFERING SUBSTANCE** on the Test Record. The EC/IR II will not identify or measure the amount of the interfering substance.

1. Stafford, David T. 1993. "Investigation of the Response of Fuel Cell Based Alcohol Breath Test Instruments to Substances Other than Ethanol." Tennessee: University of Tennessee Toxicology Laboratory.

INTOX EC/IR II DIAGRAM



The **Breath Tube** is the heated, reinforced tube on the left side of the instrument that functions as the transport mechanism for breath samples from the testing subject to the instrument. It is heated to prevent condensation of water vapor. All breath samples and the room air used in the air blank sequences are directed to the sample chamber through this tube.

The **Display Panel** communicates information and instructions from the instrument to the operator.

The **Power Switch** on the rear of the instrument turns the Intox EC/IR II on or off.

The **Bar Code Reader** reads operator ID cards as well as subject drivers' licenses to aid operators in the speedy and accurate transfer of information to the instrument during a breath test sequence. *(Use is optional)*

The **Keyboard** is used for data entry. Information entered via the keyboard is stored in the instrument's electronic memory and printed.

The **Dry Gas Compartment** is the secure storage compartment integrated within the instrument for storage of a compressed gas cylinder. *(Use is optional)*

The **External Printer** is used to print all test data from the instrument. *(Actual printers used may vary)*

ADMINISTERING A SUBJECT TEST

To administer a subject test on the EC/IR II in Missouri, Form #13, “Blood Alcohol Test Report - Intox EC/IR II” must be completed. This form will be completed automatically by the EC/IR II during the breath test sequence, and a copy of the form will be printed at the end of the test sequence.

1. The first step of the operational checklist is an examination of the subject’s mouth. This examination can be performed in one of two ways: The officer can perform a limited visual examination of the subject’s mouth, or the officer can ask the subject whether they have any substances in their mouth. Substances are defined as solid or liquid foreign matter, but does not include dentures, dental work, studs, piercings, or tongue jewelry. Once this examination has been completed, the officer may begin the observation period.

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT - INTOX EC/IR II
FORM #13

LOCATION OF INSTRUMENT	INSTRUMENT SERIAL NUMBER	DATE OF TEST	TIME OF TEST
SUBJECT NAME		DATE OF BIRTH	
SEX	SUBJECT DRIVER LICENSE NUMBER	STATE	
OFFICER ID		OFFICER NAME	
OFFICER		OFFICER PERMIT	PERMIT EXP. DATE

OPERATIONAL CHECKLIST: INTOX EC/IR II

- 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.
- 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.
- 3. Assure that the power switch is ON and the screen is displaying "PRESS ENTER TO START".
- 4. Press the Enter button.
- 5. Enter subject and officer information.
- 6. When display reads "Please Blow!!", and gives audible beep, insert mouthpiece and take the subject's breath sample.

SUBJECT TEST RESULTS

COMMENTS:

CERTIFICATION BY OPERATOR

As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:

- 1. There was no deviation from the procedure approved by the department.
- 2. To the best of my knowledge the instrument was functioning properly.
- 3. I am authorized to operate the instrument.
- 4. No radio transmission occurred inside the room where and when this test was being conducted.

SIGNATURE OF OPERATOR: _____ DATE: _____
 NUMBER OF PAGES: _____ DATE: _____

MOBILE (417) 485-2000 FAX (417) 485-2001
 MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
 2000 W. WASHINGTON AVENUE, COLUMBIA, MISSOURI 65201

2. An officer with a valid Type II or Type III permit must observe the subject for a minimum of fifteen (15) minutes. The officer must remain close enough to the subject during the observation period to reasonably ensure, using the senses of sight, hearing, or smell, that the test subject does not smoke, vomit, or have any oral intake. While the officer must remain close enough to the subject to do this, direct observation is not necessary ensure the test validity or accuracy. The permit holder should carefully observe the subject during both the fifteen-minute observation period as well as while the subject is providing his/her breath sample into the instrument, so that the subject’s actions, demeanor, and behavior can be documented.
3. Assure that the instrument is turned on. If it is not, turn it on and allow it to warm up (approximately 10 – 20 minutes). The instrument is ready to run a test when the display shows “PRESS ENTER TO START”.
4. When the instrument is ready to take a subject sample and after the mouth examination and 15 minute observation period have been performed, push the **Enter** button on the keyboard.
5. To begin entering officer and subject data, the instrument will first display “Swipe Operator Card: Or Press ENTER”. If you are using an Operator Card, place the card into the card slot of the reader and it will automatically input the operator’s information. Otherwise, hit the enter button on the display and complete the following questions.

- a. Operator Name:
- b. Operator Permit Number:
- c. Permit Expiration Date: *(mm/dd/yyyy) format*

At this point the operator has manually entered the same information that would have been read from an operator card. All operators will then be asked the following questions:

- d. Check Mouth? [Y/N]:
- e. 15 Minutes Observed? [Y/N]:
- f. Observed By: *(default answer is name of operator)*

The instrument will next display “Please Swipe Driver’s License: Or Press ENTER”. If you have the subject’s driver’s license, place the license with the bar code into the card slot of the reader and it will automatically input the subject’s information. Otherwise, hit the enter button on the display and complete the following questions.

- g. Subject Last Name:
- h. Subject First Name:
- i. Subject M.I.:
- j. Subject Date of Birth: *(mm/dd/yyyy) format*
- k. Sex Gender: *(M/F) format*
- l. Subject Driver’s License #:
- m. State of Issuance:

At this point the operator has manually entered the same information that would have been read from the driver’s license. All operators will then be asked the following questions:

- n. Arresting Officer’s Name:
- o. Arresting Officer’s ID:

The last screen the display will show during data entry is: “Starting Test Sequence: SPACE=Begin ENTER=Verify”. If the officer wishes to correct a mistake made during the data entry, or merely wishes to review the data, hit the ENTER button on the keyboard and the instrument will send the officer back through each of the questions a – k listed above. Once the officer is satisfied with the data, the space bar on the keyboard at this stage and the instrument will move out of data entry and into the automated test sequence.

During the automated test sequence the instrument display will show the following series of messages.

DIAGNOSTIC CHECK

To begin the automated test sequence, the EC/IR II does an analysis of its internal components to make sure that everything is working properly and that the instrument is ready to conduct a subject breath test.

INSTRUMENT PURGE

After the diagnostic check has been passed, the EC/IR II pumps ambient (room) air through the breath tube and analytical bench. This is done before and after a subject sample to ensure that the instrument is clean of any residual sample from a previous breath test.

BLANK CHECK

At this point the Intox EC/IR II measures both the amount of infrared light that is striking the detector when ambient (room) air is in the sample chamber, as well as the amount of reaction on the fuel cell when only room air is in the sample chamber. The EC/IR II sets this reading as “0.000” (alcohol-free) and that is the first Blank Check.

6. After the Intox EC/IR II has successfully cycled through these steps of the automatic test sequence, the instrument will display “PLEASE BLOW/R”, accompanied by a beep. If the subject refuses, hit the “R” button on the keyboard. The instrument will print, “Test refused” on the BAC test report and terminate the test sequence. If the subject is not refusing to take the breath test, insert a mouthpiece into the Breath Tube and have the subject blow at this time.

The officer should advise the subject as follows: ***“Place your mouth on the mouthpiece and blow long and hard into the tube until I tell you to stop.”***

The breath sample has to meet the following three criteria to assure the collection of an adequate sample of end-expiratory (alveolar) breath. These criteria are:

- a. A minimum breath flow rate must be maintained until the minimum breath volume has been delivered.
- b. During the breath sample, the minimum flow rate must be maintained continuously for a minimum time and minimum sample volume.
- c. The flow rate must then decrease as flow diminishes naturally from the subject.

The Intox EC/IR II allows a three-minute window for the completion of a breath test, with a maximum total of 6 separate breath attempts. If none of the 6 breath attempts results in a complete breath sample, the EC/IR II will print a test report of “Insufficient sample”. If the subject fails to give a breath sample during the three minute test window, the Intox EC/IR II will print “Breath timeout – No sample provided”.

After the subject has finished giving a valid breath sample and the breath flow rate decreases to below the sampling threshold, the instrument will finish the analysis of the breath sample. The instrument will then complete another “Blank Check”.

Once the breath test and all operational steps performed by the instrument are completed and all test results have been accepted by the instrument, the Intox EC/IR II will then ask the operator to input any comments to be printed on the test report.

After the test comments have been completed, the external printer of the EC/IR II will print both the BAC Test Report Form as well as an unsigned copy of the most recent maintenance report.

Good hygiene suggests that a new mouthpiece be used for each separate breath test performed on a test subject.

INTOX EC/IR II TEST STATUS CODES

Occasionally, a status message, or code, will appear on the screen and/or on the BAC Test Report. The following is a list of the messages that will appear on the display and/or on an evidential ticket printout. If one of the following messages is received while operating the EC/IR II, please follow the recommended action.

STATUS CODE	CORRECTIVE ACTION
MAINTENANCE TEST REQUIRED	Out of service. Contact Type II and go to another instrument.
MOUTH ALCOHOL	Conduct new oral examination and new observation period. Try one or more tests. If unsuccessful, request blood sample under implied consent.
INSUFFICIENT SAMPLE	A complete and valid breath test was not given during sampling. Try one or more tests. An additional observation period is not warranted. You may want to request blood sample under implied consent.
INTERFERING SUBSTANCE	Try one more test. If an interfering substance is detected on the second test, request blood sample under implied consent.
BREATH TIMEOUT	No breath sample was provided during the three minute test window. You may want to request blood sample under implied consent.
BREATH AT IMPROPER TIME	Subject began to blow when instrument was not ready to accept sample. Try one or more tests. An additional observation period is not warranted. You may want to request blood sample under implied consent.
CHECK AMBIENT CONDITIONS	Check for odors, check to see if mouthpiece in breath tube, try one or more tests. If unsuccessful, contact Type II.
OPERATOR ABORT	Operator aborted the test sequence prior to test completion. Try one or more tests. An additional observation period is not warranted.
AMBIENT DETECTED	Check for odors, check to see if mouthpiece in breath tube, try one or more tests. If unsuccessful, contact Type II.
ETHANOL BASELINE ERROR	Out of service. Contact Type II and go to another instrument.
SET SOLENOID ERROR	Out of service. Contact Type II and go to another instrument.

If any status code appears on the display or on a BAC Test Report other than those listed above, discontinue use of the instrument and contact a Type II responsible for maintaining the instrument.



**Rules of
Department of Health and
Senior Services**

**Division 25—State Public Health Laboratory
Chapter 30—Determination of Blood Alcohol by Blood,
Breath, Saliva, and Urine Analysis; and Determination for
the Presence of Drugs in Blood, Saliva, and Urine**

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**Title 19—DEPARTMENT OF
HEALTH AND SENIOR SERVICES
Division 25—State Public Health
Laboratory**

**Chapter 30—Determination of Blood
Alcohol by Blood, Breath, Saliva, and
Urine Analysis; and Determination for
the Presence of Drugs in Blood, Saliva,
and Urine**

**19 CSR 25-30.011 General Provisions for
the Determination of Blood, Breath,
Saliva, or Urine Analysis and Drug Testing**

PURPOSE: This rule provides general information regarding the applicability of the rules in this chapter, definitions of terms, permits and operation of breath analyzers.

(1) Only those laboratories or persons performing analysis of blood, breath, saliva, or urine for the determination of blood alcohol content, or of blood, saliva, or urine for the presence of drugs—at the direction of a law enforcement officer acting under the provisions of sections 577.020–577.041, RSMo, and sections 306.111–306.119, RSMo—are subject to the rules in this chapter.

(2) The following definitions shall be used in the interpretation and enforcement of the rules in this chapter:

(A) Blood alcohol content is the alcohol content of blood expressed as a percentage based on grams of alcohol per one hundred (100) milliliters of blood or grams of alcohol per two hundred ten (210) liters of breath;

(B) Breath analyzer is an instrument which measures and expresses the blood alcohol content from a sample of expired air;

(C) Department is the Missouri Department of Health and Senior Services;

(D) Drugs are illegal or controlled chemical substances, other than alcohol, that are capable of impairing an individual's ability to operate a motor vehicle;

(E) Field service and repairs are the service and repairs on breath analyzers at locations other than at a manufacturer's facility;

(F) Maintenance checks are the standardized and prescribed procedures used to determine that a breath analyzer is functioning properly and is operating in accordance with the operational procedures established by the Department of Health and Senior Services;

(G) Permit is the written authorization from the Department of Health and Senior Services for an individual to perform analyses of blood, breath, saliva, or urine for blood alcohol content; to perform analyses of blood, saliva, or urine for drugs; to operate breath analyzers; to supervise operators

of breath analyzers; to serve as instructors of training courses; and to perform field service and repairs and maintenance checks on breath analyzers;

(H) Observation period is the minimum fifteen- (15-) minute continuous period that ends when a breath sample has been provided into the approved breath analyzer, during which time the operator shall remain close enough to a subject to reasonably ensure, using the senses of sight, hearing, or smell, that a test subject does not smoke, vomit, or have any oral intake during the fifteen- (15-) minute observation period. Direct observation is not necessary to ensure the validity or accuracy of the test result;

(I) Oral intake is the act of placing a substance from outside the body into the mouth during the observation period. The mouthpiece used to provide a breath sample shall not constitute oral intake;

(J) Vomiting is the act of ejecting the solid and/or liquid contents of the stomach through the mouth, and does not include belching or burping;

(K) Examination is a limited visual examination of a test subject's mouth and/or denial by a subject that he or she has any substance in his or her mouth; and

(L) Substance is any foreign matter, solid or liquid, not to include dentures, dental work, studs, piercing, or tongue jewelry.

(3) The chemical analysis of a person's blood, breath, saliva, or urine conducted under the provisions of sections 577.020–577.041, RSMo, and sections 306.111–306.119, RSMo, shall be performed by licensed medical personnel or by personnel possessing a valid permit issued by the department.

(A) Permits are valid for two (2) years from the date of issuance.

(B) A permittee is authorized to perform only those tests for analysis, or to operate or maintain those breath analyzers that are specified on the permit.

(C) A permit may not be used as an endorsement from the department for promotional or commercial purposes.

(4) Applications for permits and renewals of permits shall be made on forms (see 19 CSR 25-30.021, 19 CSR 25-30.031, or 19 CSR 25-30.041) available from the Breath Alcohol Program, State Public Health Laboratory—Southeast Branch, 2875 James Boulevard, Poplar Bluff, MO 63901. Forms are also available at <http://health.mo.gov/lab/breathalcohol/>. Requests for approval of instruments, methods, or training courses shall be made to the director, State Public Health Laboratory, c/o Breath Alcohol Program. Criteria and

standards used for approval purposes shall be provided upon request by the State Public Health Laboratory.

(5) Breath analyzers shall be operated strictly in accordance with the procedures set forth in 19 CSR 25-30.060.

(A) An operational checklist, including the certification section, shall be completed with each breath test at the time of the test, by the individual performing the test.

(B) An individual permitted to operate a breath analyzer shall—

1. Immediately suspend use of a breath analyzer that is not functioning properly; and

2. Submit to periodic reviews, examinations or surveys conducted by the department.

(6) The department may initiate proceedings to deny, suspend, or revoke a permit when there is evidence of false or misrepresented information given on an application or renewal for a permit; when there is evidence that the permittee has falsified reports, negligently performed analyses or reported results, used an instrument or method not approved by the department, performed analyses not authorized by the permit, or has used the permit for promotional or commercial purposes; or when the permittee has demonstrated an inability to accurately and properly perform analyses or satisfactorily meet the qualifications and competence standards required of the permit.

(A) The department shall provide written notice of the disciplinary action to the permittee and the employee of the permittee.

(B) The notice shall contain a summary of the evidence supporting the disciplinary action.

AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 306.114, 306.117, 577.020, and 577.037, RSMo Supp. 2011. This rule previously filed as 19 CSR 20-30.011. Original rule filed July 15, 1988, effective Sept. 29, 1988. Changed to 19 CSR 25-30.011 Jan. 1, 1995. Emergency amendment filed May 10, 2001, effective May 22, 2001, expired Nov. 17, 2001. Amended: Filed May 10, 2001, effective Oct. 30, 2001. Amended: Filed May 31, 2012, effective Dec. 30, 2012.*

**Original authority: 192.006, RSMo 1993, amended 1995; 306.114, RSMo 1993, amended 2004, 2005, 2008; 306.117, RSMo 1993, amended 2005, 2008; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*



Collins v. Director of Revenue, 691 S.W.2d 246 (Mo. banc. 1985); *Jannett v. King*, 687 S.W.2d 252 (Mo. App. 1985); *Stuart v. Director of Revenue*, 761 S.W.2d 234 (Mo. App. 1988). *Prima facie* case for admission of breath analysis test results is made if the test is administered by a certified operator in accordance with promulgated operating procedures.

Collins v. Director of Revenue, 691 S.W.2d 246 (Mo. banc 1985); *Stuart v. Director of Revenue*, 761 S.W.2d 234 (Mo. App. 1988). A contention that a breath analysis instrument was not functioning properly can only be made if supported by some evidence which suggests that a malfunction occurred despite adherence to correct test methods.

Williams v. Director of Revenue, 721 S.W.2d 797 (Mo. App. 1986). The results of approved breath analysis tests are measured by weight.

Daniels v. Director of Revenue, 48 S.W.3d 42 (Mo. App. 2001), overruled on other grounds by *Verdoorn v. Director of Revenue*, 119 S.W.3d 543 (Mo. 2003). "Belching" does not constitute "vomiting" because stomach contents are not disgorged through the mouth.

Misener v. Director of Revenue, 134 S.W.3d 761 (Mo. App. 2004). Subject waived any defense based upon the breath test result being contaminated by an antacid tablet in his mouth because he did not respond truthfully when asked whether he was taking any medication.

19 CSR 25-30.021 Type I Permit

PURPOSE: This rule establishes the qualifications, duties, and responsibilities of a Type I permittee.

(1) A Type I permit, included herein, authorizes an individual to perform analyses of blood, saliva, or urine for blood alcohol content and to perform analyses of blood, saliva, or urine for the presence of drugs.

(2) An applicant for a Type I permit shall not be less than twenty-one (21) years of age and shall possess a baccalaureate degree in chemical, physical, or biological science from an accredited college or university or shall have at least two (2) years of relevant analytical experience and the equivalent of at least two (2) years of college-level education with at least half of the credit hours earned in the chemical, physical, or biological sciences.

The applicant shall also complete an application for a Type I permit, included herein.

(A) To perform analyses of blood, saliva, or urine for blood alcohol content, the department shall send three (3) check specimens to the applicant for analysis. The applicant shall perform the analyses within the time set by the department. The results reported on the three (3) samples shall be within five percent (5%) of the true value. A second set of three (3) check samples shall be sent to the applicant if the results from the first set were unsatisfactory. If the results from the second set of check samples are unsatisfactory, the department shall return the application. Any further efforts to meet this condition for completion of the application shall be made at the discretion of the department based on the nature of the problem; the ability of the applicant; and the facility, equipment, and methods that were employed.

(B) Effective July 1, 2014, to perform analyses of blood, saliva, or urine for the presence of drugs, the applicant shall be an employee of a laboratory that holds a national accreditation through the College of American Pathologists (CAP), the American Board of Forensic Toxicologists (ABFT), or through the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/Lab). This accreditation shall include an annual forensic proficiency test on each biological matrix (blood, saliva, or urine) tested. A copy of the certification for each laboratory shall be supplied to the State Public Health Laboratory upon request.

(3) A Type I permittee shall maintain complete records of testing, quality assurance data, logbooks, and other documentation related to the performance of tests as established under general standards of laboratory practice and chain-of-custody procedures.

(4) All provisions of subsection (2)(A) of this rule shall apply for renewal of a permit authorizing the analysis of blood, saliva, or urine for blood alcohol content. A set of three (3) check samples shall be satisfactorily analyzed during the last year of the current permit, and the applicant shall complete an application for a Type I permit, included herein.

(5) Type I permits issued prior to the effective date of this rule shall be considered valid under the conditions of this rule.

(6) Type I permit applications completed prior to the effective date of this rule shall be considered valid under the conditions of this rule.



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES
BREATH ALCOHOL PROGRAM



**PERMIT
TYPE 1**

is hereby authorized to determine the content of _____
(TYPE IN "ALCOHOL" OR "DRUGS" OR BOTH)

from a sample of _____ utilizing approved standard chemical methods.
(TYPE IN "BLOOD," "SALIVA" OR "URINE")

Permit issued under the provisions of sections 577.020 through 577.041, RSMo and 306.111 through 306.119 RSMo.

DATE _____

DIRECTOR OF STATE PUBLIC HEALTH LABORATORY

NUMBER _____

EXPIRES _____

DIRECTOR OF DEPARTMENT OF HEALTH AND SENIOR SERVICES

MO 580-1242 (6-10)

LAB-2 (6-10)



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES
BREATH ALCOHOL PROGRAM



**PERMIT
TYPE 1**

is hereby authorized to determine the content of _____
(TYPE IN "ALCOHOL" OR "DRUGS" OR BOTH)

from a sample of _____ utilizing approved standard chemical methods.
(TYPE IN "BLOOD," "SALIVA" OR "URINE")

Permit issued under the provisions of sections 577.020 through 577.041, RSMo and 306.111 through 306.119 RSMo.

DATE _____

DIRECTOR OF STATE PUBLIC HEALTH LABORATORY

NUMBER _____

EXPIRES _____

DIRECTOR OF DEPARTMENT OF HEALTH AND SENIOR SERVICES

MO 580-1242 (6-10)

LAB-2 (6-10)



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
BREATH ALCOHOL PROGRAM
APPLICATION FOR TYPE I PERMIT

THIS APPLICATION IS FOR <input type="checkbox"/> NEW PERMIT <input type="checkbox"/> RENEWAL		CURRENT PERMIT NUMBER AND EXPIRATION DATE				
PRINT FULL NAME			AGE	TELEPHONE NUMBER		
SOCIAL SECURITY NUMBER		A disclosure concerning your SSN number is available at: http://www.health.mo.gov/lab/breathalcohol/				
ORGANIZATION				EMAIL ADDRESS		
BUSINESS ADDRESS (STREET, CITY, STATE, ZIP CODE)						
DIRECTOR'S NAME				TELEPHONE NUMBER		
ALCOHOL ANALYSIS:		<input type="checkbox"/> BLOOD	<input type="checkbox"/> URINE	<input type="checkbox"/> SALIVA		
DRUG ANALYSIS:		<input type="checkbox"/> BLOOD	<input type="checkbox"/> URINE	<input type="checkbox"/> SALIVA		
FOR DRUG TESTING ONLY						
PROVIDE NAME OF PROFICIENCY TESTING PROGRAM(S) YOUR FACILITY SUBSCRIBES TO						
EDUCATION						
COLLEGE OR UNIVERSITY	YEARS ATTENDED	HOURS QTRS/SEM.	MAJOR	MINOR	DEGREE	GRADUATED
OTHER RELEVANT TRAINING						
COURSE OR PROGRAM TITLE		AGENCY OR INSTITUTION			DATES	
ANALYTICAL EXPERIENCE						
ORGANIZATION				DATES EMPLOYED		
RESULTS OF SAMPLES FOR ANALYSIS:						
METHODS OF ANALYSIS USED						
DRUGS		ALCOHOL				
<input type="checkbox"/> Enzyme Immunoassay (EIA)	<input type="checkbox"/> Radioimmunoassay (RIA)	<input type="checkbox"/> Thin Layer Chromatography (TLC)	<input type="checkbox"/> High-Performance Liquid Chromatography (HPLC)	<input type="checkbox"/> Liquid Chromatography/Mass Spectrometry (LC/MS)	<input type="checkbox"/> Cloned Enzyme Donor Immunoassay (CEDIA)	<input type="checkbox"/> Ultra-Violet/Visible Spectrophotometry (UV/Vis)
<input type="checkbox"/> Gas Chromatography/Mass Spectrometry (GC/MS)	<input type="checkbox"/> Fluorescence Polarization Immunoassay (FPIA)	<input type="checkbox"/> Gas Chromatography (GC)	<input type="checkbox"/> Enzyme-Linked Immunosorbent Assay (ELISA)	<input type="checkbox"/> Other _____	<input type="checkbox"/> Gas or Liquid Chromatography	
<input type="checkbox"/> Other _____				<input type="checkbox"/> Other _____		
SIGNATURE OF APPLICANT				DATE		
RETURN COMPLETED APPLICATION TO THE:						
Breath Alcohol Program, Missouri Department of Health and Senior Services, Southeast District Office, 2875 James Boulevard, Poplar Bluff, MO 63901						



AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 577.020 and 577.037, RSMo Supp. 2011. This rule previously filed as 19 CSR 20-30.021. Original rule filed July 15, 1988, effective Sept. 29, 1988. Changed to 19 CSR 25-30.021 Jan. 1, 1995. Amended: Filed May 31, 2012, effective Dec. 30, 2012.*

**Original authority: 192.006, RSMo 1993, amended 1995; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*

Stuart v. Director of Revenue, 761 S.W.2d 234 (Mo. App. 1988). A Type II permittee is qualified to testify as an expert on technical matters and permissible temperature tolerances.

Miller v. Director of Revenue, 719 S.W.2d 787 (Mo. banc 1986); Elkins v. Director of Revenue, 728 S.W.2d 567 (Mo. App. 1987). Possession of a permit is a matter within the personal knowledge of the permittee. Testimony by a permittee is sufficient to prove the permittee's qualifications to administer the tests.

19 CSR 25-30.031 Type II Permit

PURPOSE: This rule establishes the qualifications, duties and responsibilities of a Type II permittee and establishes a maintenance report to be used for each of the approved breath analyzers in 19 CSR 20-30.050.

(1) A Type II permit, included herein, authorizes an individual to operate a breath analyzer and to perform any of the following duties: to conduct training courses for the operation of breath analyzers that are approved by the department, to conduct training courses approved by the department to qualify for a Type II permit, to perform field service and repairs on breath analyzers as indicated on the permit, to perform maintenance checks on breath analyzers as required by the department, and to supervise operators of breath analyzers.

(2) An applicant for a Type II permit shall not be less than twenty-one (21) years of age. In addition, the applicant successfully shall complete a training course approved by the department for obtaining a Type II permit and complete an application for a Type II permit, included herein.

(3) A Type II permittee shall perform maintenance checks on breath analyzers under his/her supervision at intervals not to exceed

thirty-five (35) days. The permittee shall retain the original report of the maintenance check and submit a copy of the report so that it shall be received by the department within fifteen (15) days from the date the maintenance check was performed. In addition, maintenance checks shall be completed when—

(A) A new instrument is placed into service; or

(B) The instrument has been serviced, repaired, or recalibrated.

(4) Type II permittees shall maintain complete records as required in 19 CSR 25-30.021(3) and in 19 CSR 25-30.011(5)(A). Type II permittees shall provide oversight and assistance to assure the competency of the operators under their supervision. They shall conduct training courses as approved by the department.

(5) To renew a Type II permit, the applicant shall have completed at least two (2) maintenance checks and at least ten (10) tests on drinking subjects, following the operational checklists, within the past year on each breath analyzer for which renewal is requested. If these conditions are not met or if the permit has expired for more than thirty (30) days, the applicant shall perform two (2) maintenance checks and five (5) self-administered tests for each breath analyzer for which renewal is requested. Copies of the maintenance checks and the operational checklists and printouts for the five (5) self-administered tests shall accompany the application for renewal.

(6) Type II permits issued prior to the effective date of this rule shall be considered valid under the conditions of this rule.

(7) For the maintenance checks referred to in sections (3)–(5) of this rule, the appropriate maintenance report form for the specific instrument being checked shall be used—

(A) When performing a maintenance check on the DataMaster DMT, the report incorporated in the instrument software shall be used (see Report No. 1 included herein for example);

(B) When performing a maintenance check on the CMI Intoxilyzer 8000, the report incorporated in the instrument software shall be used (see Report No. 2 included herein for example);

(C) When performing a maintenance check on the Intox EC/IR II, the report incorporated in the instrument software shall be used (see Report No. 3 included herein for example);

(D) When performing a maintenance check on the CMI Intoxilyzer 5000, Report No. 4 included herein shall be used;

(E) When performing a maintenance check on the DataMaster, Report No. 6 included herein shall be used; and

(F) When performing a maintenance check on the Alco-Sensor IV with printer, Report No. 7 included herein shall be used.

(8) Maintenance report forms required in section (7) of this rule prior to the effective date of this rule and completed on maintenance checks before that date shall be considered valid under this rule.

(9) Type II permit applications completed prior to the effective date of this rule shall be considered valid under the conditions of this rule.



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES
BREATH ALCOHOL PROGRAM



PERMIT
TYPE II

is hereby authorized to instruct and supervise operators, train instructors, inspect, calibrate, perform field service and repairs, and operate the following breath analyzer(s):

for the determination of the alcoholic content of blood from a sample of expired air. Permit issued under the provisions of sections 577.020 through 577.041, RSMo and 306.111 through 306.119 RSMo.

DATE _____

DIRECTOR OF STATE PUBLIC HEALTH LABORATORY

NUMBER _____

EXPIRES _____

DIRECTOR OF DEPARTMENT OF HEALTH AND SENIOR SERVICES

MO 580-0771 (6-10)

LAB-4 (R6-10)



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES
BREATH ALCOHOL PROGRAM



PERMIT
TYPE II

is hereby authorized to instruct and supervise operators, train instructors, inspect, calibrate, perform field service and repairs, and operate the following breath analyzer(s):

for the determination of the alcoholic content of blood from a sample of expired air. Permit issued under the provisions of sections 577.020 through 577.041, RSMo and 306.111 through 306.119 RSMo.

DATE _____

DIRECTOR OF STATE PUBLIC HEALTH LABORATORY

NUMBER _____

EXPIRES _____

DIRECTOR OF DEPARTMENT OF HEALTH AND SENIOR SERVICES

MO 580-0771 (6-10)

LAB-4 (R6-10)



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
BREATH ALCOHOL PROGRAM

2

APPLICATION FOR TYPE II PERMIT FOR OPERATION OF BREATH ALCOHOL ANALYZERS

THIS APPLICATION IS FOR <input type="checkbox"/> NEW PERMIT <input type="checkbox"/> RENEWAL		CURRENT PERMIT NUMBER AND EXPIRATION DATE
PRINT FULL NAME		TITLE
SOCIAL SECURITY NUMBER		A disclosure concerning your SSN number is available at: http://www.health.mo.gov/lab/breathalcohol/
DEPARTMENT OR TROOP		TELEPHONE
BUSINESS ADDRESS (STREET, CITY, STATE, ZIP CODE)		
EMAIL ADDRESS		

LIST ALL ORIGINAL TRAINING COURSES FOR OPERATION OF BREATH ANALYZERS
(Also, please place a checkmark beside ALL breath analyzer(s) for which you are requesting a permit.)

DATES OF COURSE	LOCATION OF COURSE	COURSE LENGTH (HRS.)	NAME & MODEL OF BREATH ANALYZER	PLACE X / CHECK INSTRUMENTS FOR WHICH YOU REQUEST	NAME OF INSTRUCTOR
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	

List the manufacturer and name of instruments for which you are currently performing maintenance reports on and the number of maintenance reports performed on EACH type in the last year.

MANUFACTURER AND NAME OF INSTRUMENT	NUMBER OF MAINTENANCE REPORTS	NUMBER OF SUBJECT TESTS
1.		
2.		
3.		

When adding a new instrument, you receive a new two (2) year permit. Therefore, normal renewal procedures apply for the instrument(s) on your current permit that you wish to transfer to the new permit. Disregarding these renewal procedures will result in a new permit for the new instrument only.

To renew a Type II Permit, the applicant shall have completed two (2) Maintenance Reports and shall have performed at least ten (10) tests on drinking subjects in the past year on each instrument for which renewal is requested. If these conditions are not met, or the permit has expired for more than thirty (30) days, the applicant shall perform two (2) Maintenance Reports and five (5) self-administered tests for each breath analyzer for which renewal is requested. Copies of the Maintenance Reports along with the Operational checklists and printouts for the five (5) self-administered tests shall accompany the application for renewal.

SIGNATURE OF APPLICANT ▶	DATE
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RETURN COMPLETED APPLICATION TO THE: Breath Alcohol Program, Missouri Department of Health and Senior Services
Southeast District Office
2875 James Blvd.
Poplar Bluff, MO 63901



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
BREATH ALCOHOL PROGRAM
DATAMASTER DMT MAINTENANCE REPORT

REPORT #1

Complete this report at the time of the regular monthly preventive maintenance check (not to exceed 35 days).
Complete this report whenever the instrument is serviced or repaired and whenever it is placed into service.
Retain the original and send a copy within 15 days to the Breath Alcohol Program, DHSS.

DATAMASTER DMT SN	NAME OF AGENCY	DATE OF INSPECTION
LOCATION OF INSTRUMENT (STREET AND CITY)		TIME OF INSPECTION

CHECKLIST: Place a mark on the line by each item if found to be satisfactory or is operating within established limits. (Write in observed values where determined). Unmarked items must be corrected before using instrument.

DIAGNOSTIC RECORD

DATE AND TIME _____	<input type="checkbox"/> DETECTOR
<input type="checkbox"/> PROGRAM	<input type="checkbox"/> FILTER 1
<input type="checkbox"/> SAMPLE CHAMBER _____	<input type="checkbox"/> FILTER 2
<input type="checkbox"/> BREATH TUBE _____	<input type="checkbox"/> FILTER 3
<input type="checkbox"/> PUMP	<input type="checkbox"/> INTERNAL STANDARD

BREATH ANALYZER ACCURACY STANDARDS

SIMULATOR SOLUTION COMPRESSED ETHANOL-GAS MIXTURE

STANDARD SUPPLIER _____ LOT # _____ EXP. DATE _____

SIMULATOR TEMP (34°C ± 0.2°C) _____ SIMULATOR SN _____ SIMULATOR EXP DATE _____

CALIBRATION CHECK - (ONLY ONE STANDARD IS TO BE USED PER MAINTENANCE REPORT)
Run three tests using a standard solution. All three tests must be within ±5% of the standard value and must have a spread of .005 or less. Mark the box corresponding to the standard solution being used.

0.10% STANDARD - MUST READ BETWEEN 0.095% AND 0.105% INCLUSIVE

0.08% STANDARD - MUST READ BETWEEN 0.076% AND 0.084% INCLUSIVE

0.04% STANDARD - MUST READ BETWEEN 0.038% AND 0.042% INCLUSIVE

TEST 1: _____ TEST 2: _____ TEST 3: _____

PERFORM R.F.I. TEST

INDICATE THE NUMBER OF BREATH TEST IN THE FOLLOWING RANGES SINCE THE LAST MAINTENANCE REPORT:

REFUSALS	0-.04	.05-.09	.10-.14	.15-.19	OVER .19
----------	-------	---------	---------	---------	----------

LIST ANY NEW PARTS AND DESCRIBE ANY ALTERATION OR MODIFICATION THAT WAS MADE TO RESTORE THE INSTRUMENT TO OPERATE SATISFACTORILY AND WITHIN ESTABLISHED LIMITS (USE OTHER SIDE IF NECESSARY)

INSPECTING OFFICER

SIGNATURE	PRINT FULL NAME
TYPE II PERMIT NUMBER	EXPIRATION DATE
	TELEPHONE NUMBER

RETURN COMPLETED REPORT TO THE
Breath Alcohol Program, Missouri Department of Health and Senior Services, Southeast District Office, 2875 James Blvd, Poplar Bluff, MO 63901



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
CMI INTOXILYZER 8000 MAINTENANCE REPORT

REPORT #2

Complete this report in duplicate at the time of the regular monthly preventive maintenance check, and whenever instrument is repaired. Send one copy to Department of Health and Senior Services, and retain one copy in department file.

INSTRUMENT SERIAL NUMBER	LOCATION OF INSTRUMENT	DATE OF INSPECTION	TIME OF INSPECTION
--------------------------	------------------------	--------------------	--------------------

CALIBRATION CHECK RESULTS			CALIBRATION CHECK SUMMARY		
TEST	g/210L	TIME	STANDARD TYPE	STANDARD LOT NO.	STANDARD EXPIRATION DATE
			SIM TEMPERATURE	SIM SERIAL NUMBER	SIM CERTIFICATE EXPIRATION
			STANDARD VALUE	STANDARD SUPPLIER	
			CALIBRATION CHECK RESULT 1		
			CALIBRATION CHECK RESULT 2		
			CALIBRATION CHECK RESULT 3		
			MAXIMUM DEVIATION (MUST BE WITHIN 5%)	SPREAD (MUST BE .005 OR LESS)	

DIAGNOSTIC TEST RESULTS	RFI TEST RESULTS		
	TEST	g/210L	TIME
Voltage/Current Test			
RAM Test			
EEPROM Checksum Test			
Real Time Clock Test			
DSP Test			
Analytical Stability Test			
Modem Test			
Temperature Regulation Test			

NUMBER OF REFUSALS AND SUBJECT BREATH TESTS IN EACH RANGE SINCE LAST MAINTENANCE REPORT					
REFUSALS	.00-.04	.05-.09	.10-.14	.15-.19	OVER .19

List any new parts and describe any alteration or modification that was made to restore the instrument to operate satisfactorily and within established limits (use other side if necessary).

INSPECTING OFFICER			
SIGNATURE		PRINT NAME	
TYPE II PERMIT NUMBER	EXPIRATION DATE	TELEPHONE NUMBER	



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
BREATH ALCOHOL PROGRAM

INTOX EC/IR II MAINTENANCE REPORT

REPORT #3

Complete this report at the time of the regular monthly preventive maintenance check (not to exceed 35 days).
Complete this report whenever the instrument is serviced or repaired and whenever it is placed into service.
Retain the original and send a copy within 15 days to the Breath Alcohol Program, DHSS.

INTOX EC/IR II SN	NAME OF AGENCY	DATE OF INSPECTION
LOCATION OF INSTRUMENT (STREET AND CITY)		TIME OF INSPECTION

CHECKLIST: Place a mark in the box by each item if found to be satisfactory or is operating within established limits. (Write in observed values where determined). Unmarked items must be corrected before using instrument.

DIAGNOSTIC RECORD

<input type="checkbox"/> BLANK CHECK	<input type="checkbox"/> CO2 CHECK
<input type="checkbox"/> FC 1 TEMP	<input type="checkbox"/> FLOW CHECK
<input type="checkbox"/> SRC TEMP	<input type="checkbox"/> FCB CHECK
<input type="checkbox"/> DET TEMP	<input type="checkbox"/> CRC COMP CHECK
<input type="checkbox"/> BT TEMP	<input type="checkbox"/> CRC CAL CHECK
<input type="checkbox"/> STD 2 TEMP	<input type="checkbox"/> PRINT TEST
<input type="checkbox"/> ETH CHECK	DATE AND TIME _____

BREATH ANALYZER ACCURACY STANDARDS

SIMULATOR SOLUTION COMPRESSED ETHANOL-GAS MIXTURE

STANDARD SUPPLIER _____ LOT # _____ EXP. DATE _____

SIMULATOR TEMP (34°C ± 0.2°C) _____ SIMULATOR SN _____ SIMULATOR EXP DATE _____

CALIBRATION CHECK - (ONLY ONE STANDARD IS TO BE USED PER MAINTENANCE REPORT)
Run three tests using a standard solution. All three tests must be within ±5% of the standard value and must have a spread of .005 or less. Mark the box corresponding to the standard solution being used. (PRINTOUT ATTACHED)

0.10% STANDARD - MUST READ BETWEEN 0.095% AND 0.105% INCLUSIVE

0.08% STANDARD - MUST READ BETWEEN 0.076% AND 0.084% INCLUSIVE

0.04% STANDARD - MUST READ BETWEEN 0.038% AND 0.042% INCLUSIVE

TEST 1 ←	TEST 2 ←	TEST 3 ←
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INDICATE THE NUMBER OF BREATH TEST IN THE FOLLOWING RANGES SINCE THE LAST MAINTENANCE REPORT:

REFUSALS	0-.04	.05-.09	.10-.14	.15-.19	OVER .19
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LIST ANY NEW PARTS AND DESCRIBE ANY ALTERATION OR MODIFICATION THAT WAS MADE TO RESTORE THE INSTRUMENT TO OPERATE SATISFACTORILY AND WITHIN ESTABLISHED LIMITS (USE OTHER SIDE IF NECESSARY)

INSPECTING OFFICER

SIGNATURE	PRINT FULL NAME
TYPE II PERMIT NUMBER	EXPIRATION DATE
	TELEPHONE NUMBER

RETURN COMPLETED REPORT TO THE: Breath Alcohol Program, Missouri Department of Health and Senior Services
Southeast District Office
2875 James Blvd, Poplar Bluff, MO 63901



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
BREATH ALCOHOL PROGRAM
CMI INTOXILYZER 5000 MAINTENANCE REPORT

REPORT #4

Complete this report at the time of the regular monthly preventive maintenance check (not to exceed 35 days).
Complete this report whenever the instrument is serviced or repaired and whenever it is placed into service.
Retain the original and send a copy within 15 days to the Breath Alcohol Program, DHSS.

INTOXILYZER 5000 SN	NAME OF AGENCY	DATE OF INSPECTION
LOCATION OF INSTRUMENT (STREET AND CITY)		TIME OF INSPECTION

CHECKLIST: Place a mark by each item if found to be satisfactory or is operating within established limits. (Write in observed values where determined.) Unmarked items must be corrected before using instrument.

- DVM TEST: (.350 ± .150) _____
- DIAGNOSTIC CHECK (PRINTOUT ATTACHED) DATE AND TIME (FROM PRINTOUT) _____
- CHARACTER DISPLAY TEST
- PRINT TEST (PRINTOUT ATTACHED)
- SIMULATOR SOLUTION SUPPLIER _____ LOT # _____ EXP. DATE _____
- SIMULATOR TEMPERATURE (34°C ± 0.2°C) _____ SIMULATOR SN _____ EXP. DATE _____
- CALIBRATION CHECK – (ONLY ONE STANDARD IS TO BE USED PER MAINTENANCE REPORT)
Run three tests using a standard solution. All three tests must be within ± 5% of the standard value and must have a spread of .005 or less. Mark the box corresponding to the standard solution being used. (PRINTOUT ATTACHED)
 - 0.100% STANDARD - MUST READ BETWEEN 0.095% AND 0.105% INCLUSIVE
 - 0.080% STANDARD - MUST READ BETWEEN 0.076% AND 0.084% INCLUSIVE
 - 0.040% STANDARD - MUST READ BETWEEN 0.038% AND 0.042% INCLUSIVE

TEST 1 ➡	TEST 2 ➡	TEST 3 ➡
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PERFORM RFI TEST (PRINTOUT ATTACHED)

**INDICATE THE NUMBER OF BREATH TESTS IN THE FOLLOWING RANGES SINCE THE LAST MAINTENANCE REPORT:
(DO NOT INCLUDE SELF-ADMINISTERED TESTS)**

REFUSALS	0-.04	.05-.09	.10-.14	.15-.19	Over .19
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LIST ANY NEW PARTS AND DESCRIBE ANY ALTERATION OR MODIFICATION THAT WAS MADE TO RESTORE THE INSTRUMENT TO OPERATE SATISFACTORILY AND WITHIN ESTABLISHED LIMITS (USE OTHER SIDE IF NECESSARY).

INSPECTING OFFICER	
SIGNATURE	PRINT FULL NAME
TYPE II PERMIT NUMBER/EXPIRATION DATE	TELEPHONE NUMBER

RETURN COMPLETED REPORT TO THE: Breath Alcohol Program, Missouri Department of Health and Senior Services
Southeast District Office
2875 James Blvd.
Poplar Bluff, MO 63901



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
BREATH ALCOHOL PROGRAM
DATAMASTER MAINTENANCE REPORT

REPORT #6

Complete this report at the time of the regular monthly preventive maintenance check (not to exceed 35 days).
Complete this report whenever the instrument is serviced or repaired and whenever it is placed into service.
Retain the original and send a copy within 15 days to the Breath Alcohol Program, DHSS.

DATAMASTER SN	NAME OF AGENCY	DATE OF INSPECTION
LOCATION OF INSTRUMENT (STREET AND CITY)		TIME OF INSPECTION

CHECKLIST: Place a mark in the box by each item if found to be satisfactory or if operating within established limits. (Write in observed values where determined.) Unmarked items must be corrected before using instrument.

<input type="checkbox"/> DIAGNOSTIC CHECK (PRINTOUT ATTACHED)	DATE AND TIME (from printout) _____
<input type="checkbox"/> COMPUTER	<input type="checkbox"/> DETECTOR
<input type="checkbox"/> PROGRAM	<input type="checkbox"/> FILTERS
<input type="checkbox"/> HEATERS SAMPLE CHAMBER _____ °C	<input type="checkbox"/> QUARTZ STANDARD
<input type="checkbox"/> FLOW DETECTOR	<input type="checkbox"/> CALIBRATION
<input type="checkbox"/> PUMP HIGH SPEED	<input type="checkbox"/> PRINTER
<input type="checkbox"/> INDICATOR LIGHTS	
<input type="checkbox"/> SIMULATOR SOLUTION SUPPLIER _____	LOT # _____ EXP. DATE _____
<input type="checkbox"/> SIMULATOR TEMP (34°C ± 0.2°C) _____ °C	SIMULATOR SN _____ EXP. DATE _____

CALIBRATION CHECK – (ONLY ONE STANDARD IS TO BE USED PER MAINTENANCE REPORT)

Run three tests using a standard solution. All three tests must be within ±5% of the standard value and must have a spread of .005 or less. Mark the box corresponding to the standard solution being used. (PRINTOUT ATTACHED)

0.100% STANDARD - MUST READ BETWEEN 0.095% AND 0.105% INCLUSIVE

0.080% STANDARD - MUST READ BETWEEN 0.076% AND 0.084% INCLUSIVE

0.040% STANDARD - MUST READ BETWEEN 0.038% AND 0.042% INCLUSIVE

TEST 1 ➡	TEST 2 ➡	TEST 3 ➡
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PERFORM R.F.I. TEST (PRINTOUT ATTACHED)

INDICATE THE NUMBER OF BREATH TESTS IN THE FOLLOWING RANGES SINCE THE LAST MAINTENANCE REPORT: (DO NOT INCLUDE SELF-ADMINISTERED TESTS)

REFUSALS	(0-.04)	(.05-.09)	(.10-.14)	(.15-.19)	OVER .19
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LIST ANY NEW PARTS AND DESCRIBE ANY ALTERATION OR MODIFICATION THAT WAS MADE TO RESTORE THE INSTRUMENT TO OPERATE SATISFACTORILY AND WITHIN ESTABLISHED LIMITS (USE OTHER SIDE IF NECESSARY).

INSPECTING OFFICER

SIGNATURE	PRINT FULL NAME
TYPE II PERMIT NUMBER/EXPIRATION DATE	TELEPHONE NUMBER

RETURN COMPLETED REPORT TO THE: Breath Alcohol Program, MO Department of Health and Senior Services, Southeast District Office
2875 James Blvd.
Poplar Bluff, MO 63901



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
ALCO-SENSOR IV WITH PRINTER MAINTENANCE REPORT

REPORT #7

Complete this report in duplicate at the time of the regular monthly preventative maintenance check, and whenever instrument is repaired. Send copy to Department of Health and Senior Services; retain original in department file.

ALCO SENSOR IV SN	PRINTER SN	DATE OF INSPECTION
LOCATION OF INSTRUMENT (STREET AND CITY)		TIME OF INSPECTION

CHECKLIST: Place a mark in the box by each item if found to be satisfactory or if operating within established limits. (Write in observed values where determined.) Unmarked items must be corrected before using instrument.

DIGITAL READOUT (ALL ELEMENTS OPERATIONAL)

TEMPERATURE OF ALCO SENSOR (10°C - 40°C)

PRINTER WORKING PROPERLY

TIME AND DATE DISPLAYING PROPERLY

BREATH ALCOHOL ACCURACY STANDARDS

SIMULATOR SOLUTION

COMPRESSED ETHANOL-GAS MIXTURE

STANDARD SUPPLIER _____ LOT # _____ EXP. DATE _____

SIMULATOR TEMPERATURE (34°C ± 0.2°C) _____ SIMULATOR SN _____ SIMULATOR EXP DATE _____

CALIBRATION CHECK – (ONLY ONE STANDARD IS TO BE USED PER MAINTENANCE REPORT)

Run three tests using a standard solution. All three tests must be within ±5% of the standard value and must have a spread of .005 or less. Check the box corresponding to the standard solution being used. (PRINTOUT ATTACHED)

- 0.100% STANDARD - MUST READ BETWEEN 0.095% and 0.105% INCLUSIVE
- 0.080% STANDARD - MUST READ BETWEEN 0.076% and 0.084% INCLUSIVE
- 0.040% STANDARD - MUST READ BETWEEN 0.038% and 0.042% INCLUSIVE

TEST 1 ↖

TEST 2 ↖

TEST 3 ↖

RFI DETECTOR OPERATING

**INDICATE THE NUMBER OF BREATH TESTS IN THE FOLLOWING RANGES SINCE THE LAST MAINTENANCE REPORT:
(DO NOT INCLUDE SELF-ADMINISTERED TESTS)**

REFUSALS	(0-.04)	(.05-.09)	(.10-.14)	(.15-.19)	(OVER .19)
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List any new parts and describe any alteration or modification that was made to restore the instrument to operate satisfactorily and within established limits (use other side if necessary).

INSPECTING OFFICER

SIGNATURE	PRINT NAME
TYPE II PERMIT NUMBER/EXPIRATION DATE	TELEPHONE NUMBER

Return completed report to the: Breath Alcohol Program, MO Department of Health and Senior Services, Southeast District Office
2875 James Boulevard
Poplar Bluff, MO 63901



AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 306.114, 306.117, 577.020, and 577.037, RSMo Supp. 2011. This rule previously filed as 19 CSR 20-30.031. Original rule filed July 15, 1988, effective Sept. 29, 1988. Emergency amendment filed Dec. 2, 1992, effective Dec. 12, 1992, expired April 10, 1993. Emergency amendment filed April 1, 1993, effective April 11, 1993, expired June 6, 1993. Amended: Filed Dec. 2, 1992, effective June 7, 1993. Emergency amendment filed Nov. 9, 1993, effective Nov. 19, 1993, expired March 18, 1994. Emergency amendment filed March 1, 1994, effective March 11, 1994, expired July 8, 1994. Emergency amendment filed July 12, 1994, effective July 22, 1994, expired Nov. 18, 1994. Emergency amendment filed Oct. 28, 1994, effective Nov. 7, 1994, expired March 6, 1995. Amended: Filed July 22, 1994, effective Dec. 30, 1994. Changed to 19 CSR 25-30.031 Jan. 1, 1995. Emergency amendment filed March 3, 1995, effective March 13, 1995, expired July 1, 1995. Emergency amendment filed June 21, 1995, effective July 1, 1995, expired Oct. 28, 1995. Amended: Filed March 3, 1995, effective July 30, 1995. Emergency amendment filed March 15, 1996, effective March 25, 1996, expired Sept. 20, 1996. Amended: Filed March 15, 1996, effective Aug. 30, 1996. Amended: Filed Aug. 25, 1997, effective Feb. 28, 1998. Amended: Filed May 31, 2012, effective Dec. 30, 2012.*

**Original authority: 192.006, RSMo 1993, amended 1995; 306.114, RSMo 1993, amended 2004, 2005, 2008; 306.117, RSMo 1993, amended 2005, 2008; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*

Stuart v. Director of Revenue, 761 S.W.2d 234 (Mo. App. 1988). A Type II permittee is qualified to testify as an expert on technical matters and permissible temperature tolerances.

Miller v. Director of Revenue, 719 S.W.2d 787 (Mo. banc 1986); Elkins v. Director of Revenue, 728 S.W.2d 567 (Mo. App. 1987). Possession of a permit is a matter within the personal knowledge of the permittee. Testimony by a permittee is sufficient to prove the permittee's qualifications to administer the tests.

19 CSR 25-30.041 Type III Permit

PURPOSE: This rule establishes the qualifications, duties, and responsibilities of a Type III permittee.

(1) A Type III permit, included herein, authorizes an individual to operate breath analyzers.

(2) An applicant for a Type III permit shall not be less than twenty-one (21) years of age. The applicant shall have successfully completed a training course approved by the department for operation of breath analyzers or shall offer proof of equivalent qualifications to the satisfaction of the department. The applicant must also complete an application for a Type III permit, included herein.

(3) To renew a Type III permit, the applicant shall have performed at least ten (10) tests on drinking subjects in the past year on each instrument for which renewal is requested. If this condition is not met or the permit has expired for more than thirty (30) days, the applicant shall complete a two- (2-) hour refresher training course under the supervision of an individual with a valid Type II permit. The refresher training course shall include the performance of the five (5) self-administered tests for each breath analyzer for which renewal is requested. Copies of the completed operational checklists and printout for the self-administered tests shall accompany the renewal application.

(4) Type III permits issued prior to the effective date of this rule shall be considered valid under the conditions of this rule.

(5) Type III permit applications completed prior to the effective date of this rule shall be considered valid under the conditions of this rule.



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES
BREATH ALCOHOL PROGRAM



**PERMIT
TYPE III**

_____ is hereby authorized to operate the following breath analyzer(s):

For the determination of the alcoholic content of blood from a sample of expired air. Permit issued under the provisions of sections 577.020 through 577.041, RSMo and 306.111 through 306.119 RSMo.

DATE _____

DIRECTOR OF STATE PUBLIC HEALTH LABORATORY

NUMBER _____

EXPIRES _____

DIRECTOR OF DEPARTMENT OF HEALTH AND SENIOR SERVICES

MO 580-0772 (6-10)

LAB-6 (R6-10)



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES
BREATH ALCOHOL PROGRAM



**PERMIT
TYPE III**

_____ is hereby authorized to operate the following breath analyzer(s):

for the determination of the alcoholic content of blood from a sample of expired air. Permit issued under the provisions of sections 577.020 through 577.041, RSMo and 306.111 through 306.119 RSMo.

DATE _____

DIRECTOR OF STATE PUBLIC HEALTH LABORATORY

NUMBER _____

EXPIRES _____

DIRECTOR OF DEPARTMENT OF HEALTH AND SENIOR SERVICES

MO 580-0772 (6-10)

LAB-6 (R6-10)



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
STATE PUBLIC HEALTH LABORATORY
BREATH ALCOHOL PROGRAM

APPLICATION FOR TYPE III PERMIT FOR OPERATION OF BREATH ALCOHOL ANALYZERS

THIS APPLICATION IS FOR <input type="checkbox"/> NEW PERMIT <input type="checkbox"/> RENEWAL		CURRENT PERMIT NUMBER AND EXPIRATION DATE	EMAIL ADDRESS FOR COMPLETED PERMIT
PRINT FULL NAME		TITLE	AGE
SOCIAL SECURITY NUMBER	A disclosure concerning your SSN number is available at: http://www.health.mo.gov/lab/breathalcohol/		
DEPARTMENT OR TROOP		TELEPHONE	
BUSINESS ADDRESS (STREET, CITY, STATE, ZIP CODE)			

LIST ALL ORIGINAL TRAINING COURSES FOR OPERATION OF BREATH ANALYZERS.
(Also, please be sure an is placed beside ALL breath analyzer(s) for which you are requesting a permit.)

DATES OF COURSE	LOCATION OF COURSE	COURSE LENGTH (HRS.)	NAME & MODEL OF BREATH ANALYZER	PLACE AN <input type="checkbox"/> BESIDE INSTRUMENTS FOR WHICH YOU ARE REQUESTING A PERMIT	NAME OF INSTRUCTOR
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	

IF THIS IS AN APPLICATION FOR A NEW PERMIT, INCLUDE A COPY OF APPLICANT'S EXAM

IF THIS IS A RENEWAL APPLICATION, AND/OR YOU ARE ADDING A NEW INSTRUMENT TO YOUR CURRENT PERMIT, READ THE FOLLOWING INSTRUCTIONS AND PROVIDE THE FOLLOWING ADDITIONAL INFORMATION:

When adding a new instrument, you receive a new two (2) year permit. Therefore, normal renewal procedures apply for the instrument(s) on your current permit that you wish to transfer to the new permit. Disregarding these renewal procedures will result in a new permit for the new instrument only.

To renew a Type III Permit, the applicant shall have performed at least ten (10) tests on drinking subjects in the past year on each instrument for which renewal is requested. If this condition is not met or the permit has expired for more than thirty (30) days, the applicant shall complete a two (2) hour refresher-training course under the supervision of an individual with a valid Type II Permit. The refresher-training course shall include the performance of five (5) self-administered tests for each breath analyzer for which renewal is requested. Copies of the completed operational checklists and printouts for the self-administered tests shall accompany the renewal application.

NAME OF INSTRUMENT	NUMBER OF SUBJECT TESTS	NUMBER OF SELF-TESTS	REFRESHER TRAINING COMPLETE
1.			<input type="checkbox"/>
2.			<input type="checkbox"/>
3.			<input type="checkbox"/>

SIGNATURE OF APPLICANT	DATE
------------------------	------

RECOMMENDATION OF SUPERVISOR TYPE II

I certify that _____ is qualified to operate the breath analyzer instrument(s) as requested in this application.
(PRINT TYPE III APPLICANT FULL NAME)

PRINT TYPE II APPLICANT FULL NAME	BUSINESS PHONE
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SIGNATURE OF TYPE II PERMITTEE	PERMIT NUMBER/EXPIRATION DATE
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RETURN COMPLETED APPLICATION TO THE: Breath Alcohol Program, MO Department of Health and Senior Services, Southeast District Office
2875 James Blvd.
Poplar Bluff, MO 63901



AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 306.114, 306.117, 577.020, and 577.037, RSMo Supp. 2011. This rule previously filed as 19 CSR 20-30.041. Original rule filed July 15, 1988, effective Sept. 29, 1988. Amended: Filed March 15, 1996, effective Aug. 30, 1996. Changed to 19 CSR 25-30.041 Jan. 1, 1995. Emergency amendment filed June 19, 1998, effective July 1, 1998, expired Feb. 25, 1999. Amended: Filed June 19, 1998, effective Jan. 30, 1999. Amended: Filed May 31, 2012, effective Dec. 30, 2012.*

**Original authority: 192.006, RSMo 1993, amended 1995; 306.114, RSMo 1993, amended 2004, 2005, 2008; 306.117, RSMo 1993, amended 2005, 2008; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*

Stuart v. Director of Revenue, 761 S.W.2d 234 (Mo. App. 1988). A Type II permittee is qualified to testify as an expert on technical matters and permissible temperature tolerances.

Müller v. Director of Revenue, 719 S.W.2d 787 (Mo. banc 1986); Elkins v. Director of Revenue, 728 S.W.2d 567 (Mo. App. 1987). Possession of a permit is a matter within the personal knowledge of the permittee. Testimony by a permittee is sufficient to prove the permittee's qualifications to administer the tests.

19 CSR 25-30.050 Approved Breath Analyzers

PURPOSE: This rule enumerates those breath analyzers which are approved by the Department of Health and Senior Services for the determination of the alcoholic content of blood from a sample of expired air.

(1) Approved breath analyzers are—

NAME OR ITEM	MANUFACTURER
Alco-Sensor IV with printer and Intox EC/IR II	Intoximeters, Inc., St. Louis, MO
BAC DataMaster and DataMaster DMT	National Patent Analytical Systems, Inc., Mansfield, OH (formerly a subsidiary of National Patent Development Corporation, East Hartford, CT, formerly Verax Systems, Inc., Fairport, NY)

Intoxilyzer, Model 5000 and Intoxilyzer, Model 8000

CMI/MPH, Operations of MPD, Inc., Owensboro, KY (formerly CMI, Inc., a subsidiary of Federal Signal Corp., Minturn, CO)

(2) Breath analyzers are to be used within buildings or vehicles used for driving-while-intoxicated enforcement. These breath analyzers are not approved for mobile use in boats or in outside areas.

(3) Maintenance checks and breath tests performed on previously approved breath analyzers prior to the effective date of this rule shall be considered valid under this rule if such tests were completed in compliance with the rules in effect at the time the test was conducted.

AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 306.114, 306.117, 577.020, and 577.037, RSMo Supp. 2011. This rule was previously filed as 13 CSR 50-140.050 and 19 CSR 20-30.050. Original rule filed Oct. 1, 1965, effective Oct. 13, 1965. Amended: Filed Jan. 29, 1970, effective March 30, 1970. Amended: Filed Sept. 10, 1970, effective Nov. 9, 1970. Amended: Filed Dec. 8, 1972, effective Feb. 6, 1973. Emergency amendment filed Aug. 4, 1977, effective Aug. 14, 1977, expired Dec. 12, 1977. Amended: Filed Aug. 4, 1977, effective Nov. 11, 1977. Amended: Filed Feb. 8, 1982, effective May 13, 1982. Emergency amendment filed July 27, 1984, effective Aug. 6, 1984, expired Jan. 4, 1985. Amended: Filed July 17, 1984, effective Dec. 13, 1984. Changed to 19 CSR 20-30.050, effective Aug. 15, 1986. Amended: Filed Oct. 3, 1986, effective Dec. 25, 1986. Emergency amendment filed Jan. 13, 1987, effective Jan. 23, 1987, expired May 22, 1987. Amended: Filed Jan. 16, 1987, effective April 11, 1987. Emergency rescission and emergency rule filed June 2, 1988, effective June 12, 1988, expired Sept. 19, 1988. Rescinded and readopted: Filed June 2, 1988, effective Aug. 25, 1988. Amended: Filed June 16, 1989, effective Sept. 11, 1989. Emergency amendment filed Sept. 5, 1991, effective Sept. 15, 1991, expired Jan. 12, 1992. Amended: Filed Sept. 5, 1991, effective Jan. 13, 1992. Amended: Filed Jan. 15, 1993, effective July 8, 1993. Emergency amendment filed Nov. 9, 1993, effective Nov. 19, 1993, expired March 18, 1994. Emergency amendment filed March 1, 1994, effective March 11, 1994, expired July 8, 1994. Emergency amendment filed July 12, 1994, effective July 22, 1994, expired Nov. 18, 1994. Emergency amendment filed Oct.*

28, 1994, effective Nov. 7, 1994, expired March 6, 1995. Amended: Filed July 22, 1994, effective Dec. 30, 1994. Changed to 19 CSR 25-30.050 Jan. 1, 1995. Emergency amendment filed March 15, 1996, effective March 25, 1996, expired Sept. 20, 1996. Amended: Filed March 16, 1996, effective Aug. 30, 1996. Emergency amendment filed Aug. 22, 1997, effective Sept. 1, 1997, expired Feb. 27, 1998. Amended: Filed Aug. 25, 1997, effective Feb. 28, 1998. Emergency amendment filed May 10, 2001, effective May 22, 2001, expired Nov. 17, 2001. Amended: Filed May 10, 2001, effective Oct. 30, 2001. Amended: Filed May 31, 2012, effective Dec. 30, 2012.

**Original authority: 192.006, RSMo 1993, amended 1995; 306.114, RSMo 1993, amended 2004, 2005, 2008; 306.117, RSMo 1993, amended 2005, 2008; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*

Eckhoff v. Director of Revenue, 745 S.W.2d 815 (Mo. App. 1988); Director of Revenue v. Martin, 752 S.W.2d 453 (Mo. App. 1988). For purpose of breath analysis tests, the procedural components of these tests include the testing techniques and methods, the qualifications of the person administering the tests, and the nature and description of the equipment and devices to be used. The designation of approved suppliers of test ampoules for breathalyzer test was procedural only and would be applied retrospectively.

19 CSR 25-30.051 Breath Analyzer Calibration and Accuracy Verification Standards

PURPOSE: This rule defines the standard simulator solutions or compressed ethanol-gas mixtures to be used in verifying and calibrating breath analyzers, as well as the annual checks required on simulators used in conjunction with the standard simulator solution.

(1) Standards used for the purpose of verifying and calibrating breath analyzers shall consist of standard simulator solutions or compressed ethanol-gas standard mixtures.

(2) Standard simulator solutions, used to verify and calibrate evidential breath analyzers, shall be solutions from approved suppliers. The standard simulator solutions used shall have a vapor concentration within five percent (5%) of the following values:

- (A) 0.10%;
- (B) 0.08%;
- (C) 0.04%.



(3) Approved suppliers of standard simulator solutions are—

- (A) Alcohol Countermeasure Systems, Inc.
Aurora, CO 80010
- (B) Guth Laboratories, Inc.
Harrisburg, PA 17111-4511
- (C) RepCo Marketing, Inc.
Raleigh, NC 27604
- (D) Draeger Safety, Inc.
Durango, CO 81303-7911

(4) Any breath alcohol simulator used in the verification or calibration of evidential breath analyzers with the standard simulator solutions referred to in sections (2) and (3) of this rule shall be certified against a National Institute of Standards and Technology (NIST) traceable reference thermometer or thermocouple between January 1, 2013, and December 31, 2013, and annually thereafter.

(5) Compressed ethanol-gas standard mixtures used to verify and calibrate evidential breath analyzers shall be mixtures provided from approved suppliers. The compressed ethanol-gas mixtures used shall have a concentration within five percent (5%) of the following values:

- (A) 0.10%;
- (B) 0.08%; and
- (C) 0.04%.

(6) Approved suppliers of standard compressed ethanol-gas mixtures are—

- (A) Intoximeters, Inc.
St. Louis, MO 63114
- (B) CMI, Inc.
Owensboro, KY 42303
- (C) Draeger Safety Diagnostic, Inc.
Durango, CO 81303-7911
- (D) ILMO Products Company, Inc.
Jacksonville, IL 62651-0790

(7) Compressed ethanol-gas mixtures shall only be used to verify and calibrate evidential breath analyzers listing compressed ethanol-gas mixtures as an option during the maintenance check (see 19 CSR 25-30.031).

(8) Maintenance reports completed prior to the effective date of this rule shall be considered valid under this rule if the maintenance report was completed in compliance with the rules in effect at the time the maintenance was conducted.

*AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 577.020 and 577.037, RSMo Supp. 2011. *Emergency rule filed Aug. 22, 1997, effective Sept. 1, 1997, expired Feb. 27, 1998. Original rule filed Aug. 25, 1997, effective Feb. 28, 1998.*

Emergency rescission and emergency rule filed April 17, 1998, effective May 4, 1998, expired Oct. 30, 1998. Rescinded and readopted: Filed May 1, 1998, effective Oct. 30, 1998. Amended: Filed Jan. 15, 2004, effective July 30, 2004. Amended: Filed May 31, 2012, effective Dec. 30, 2012.

**Original authority: 192.006, RSMo 1993, amended 1995; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*

19 CSR 25-30.060 Operating Procedures for Breath Analyzers

PURPOSE: This rule establishes an operational checklist (including certification by the operator) for each of the approved breath analyzers in 19 CSR 25-30.050. Prosecuting attorneys have requested that these procedures be included as a rule so they can be introduced in court to show that operators of breath analyzers have adhered strictly to the operating procedures set forth and approved by the Department of Health and Senior Services.

(1) When using Intoxilyzer, Model 5000, the procedures on the form included herein shall be performed and the form shall be completed (see form #5).

(2) When using DataMaster, the procedures on the form included herein shall be performed and the form shall be completed (see form #7).

(3) When using Alco-Sensor IV with printer, the procedures on the form included herein shall be performed and the form shall be completed (see form #8).

(4) When using DataMaster DMT, the procedures on the form incorporated within the instrument software shall be performed and the form shall be completed (see form #11 included herein for example).

(5) When using Intoxilyzer, Model 8000, the procedures on the form incorporated within the instrument software shall be performed and the form shall be completed (see form #12 included herein for example).

(6) When using Intox EC/IR II, the procedures on the form incorporated within the instrument software shall be performed and the form shall be completed (see form #13 included herein for example).

(7) The fifteen- (15-) minute observation of

the subject, which is the second procedure on the forms in sections (1)–(6) of this rule, shall be done by a current Type II or Type III permit holder. The observation period is intended to ensure that any alcohol in a test subject’s mouth has time to dissipate before a breath sample is taken so that mouth alcohol does not affect the accuracy of a test result. A fifteen- (15-) minute observation period is deemed to be sufficient for the dissipation of any mouth alcohol to a reasonable degree of scientific certainty.

(8) Results of subject tests shall be recorded on the operational checklist in a manner consistent with the breath analyzer’s digital display and/or printout. For example, if the display and/or the printout reads one hundred forty-nine thousandths percent (0.149%), the result shall be recorded as one hundred forty-nine thousandths percent (0.149%).

(9) Operational Checklists and breath tests completed prior to the effective date of this rule shall be considered valid if such tests were completed in compliance with the rules in effect at the time the test was conducted.

(10) When using the Alco-Sensor IV with printer, the use of the Manual button shall not be allowed to obtain a breath alcohol test result from a subject. Any subject breath test conducted with the Manual button prior to the effective date of this rule shall be considered valid under this rule if such tests were completed in compliance with the rules in effect at the time the test was conducted.



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT - INTOXILYZER 5000 FORM #5

SUBJECT'S NAME	DATE OF TEST		
OPERATIONAL CHECKLIST: INTOXILYZER 5000		SERIAL NUMBER	LOCATION OF INSTRUMENT
<p><input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.</p> <p><input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____ No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.</p> <p><input type="checkbox"/> 3. Assure that the power switch is ON and then press the START TEST button.</p> <p><input type="checkbox"/> 4. Enter test record card.</p> <p><input type="checkbox"/> 5. Enter subject and officer information</p> <p><input type="checkbox"/> 6. When display reads PLEASE BLOW, insert mouthpiece and take the subject's breath sample.</p> <p><input type="checkbox"/> 7. When test record is printed, remove test record and attach printout to this report.</p>			
CERTIFICATION BY OPERATOR			
BAC _____			
<p>As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:</p> <p><input type="checkbox"/> 1. There was no deviation from the procedure approved by the department.</p> <p><input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly.</p> <p><input type="checkbox"/> 3. I am authorized to operate the instrument.</p> <p><input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this test was being conducted.</p>			
NAME OF OPERATOR	PERMIT NO.	EXPIRATION DATE	DATE
WITNESS (IF ANY)			
MO 580-1212 (4-12)		AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis	
		LAB 107A (R4-12)	

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT - INTOXILYZER 5000 FORM #5

SUBJECT'S NAME	DATE OF TEST		
OPERATIONAL CHECKLIST: INTOXILYZER 5000		SERIAL NUMBER	LOCATION OF INSTRUMENT
<p><input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.</p> <p><input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____ No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.</p> <p><input type="checkbox"/> 3. Assure that the power switch is ON and then press the START TEST button.</p> <p><input type="checkbox"/> 4. Enter test record card.</p> <p><input type="checkbox"/> 5. Enter subject and officer information</p> <p><input type="checkbox"/> 6. When display reads PLEASE BLOW, insert mouthpiece and take the subject's breath sample.</p> <p><input type="checkbox"/> 7. When test record is printed, remove test record and attach printout to this report.</p>			
CERTIFICATION BY OPERATOR			
BAC _____			
<p>As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:</p> <p><input type="checkbox"/> 1. There was no deviation from the procedure approved by the department.</p> <p><input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly.</p> <p><input type="checkbox"/> 3. I am authorized to operate the instrument.</p> <p><input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this test was being conducted.</p>			
NAME OF OPERATOR	PERMIT NO.	EXPIRATION DATE	DATE
WITNESS (IF ANY)			
MO 580-1212 (4-12)		AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis	
		LAB 107A (R4-12)	



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT - DATAMASTER FORM #7

SUBJECT'S NAME _____ DATE OF TEST _____

OPERATIONAL CHECKLIST: DATAMASTER

SERIAL NO. _____ LOCATION OF INSTRUMENT _____

- 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.
- 2. Subject observed for at least 15 minutes by _____
No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.
- 3. Assure that the power switch is ON.
- 4. Press RUN button.
- 5. When display requests INSERT TICKET, insert evidence ticket.
- 6. Enter subject and officer information.
- 7. When display reads PLEASE BLOW and gives audible beep, take subject's breath sample.
- 8. When printer has completed printing out test result, remove ticket from printer. Attach printout to this report.

CERTIFICATION BY OPERATOR BAC _____

As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:

- 1. There was no deviation from the procedure approved by the department.
- 2. To the best of my knowledge the instrument was functioning properly.
- 3. I am authorized to operate the instrument.
- 4. No radio transmission occurred inside the room where and when this was being conducted.

NAME OF OPERATOR _____ PERMIT NO. _____ EXPIRATION DATE _____

WITNESS (IF ANY) _____ DATE _____

MO 580-1214 (4-12) AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis LAB 109 (R4-12)

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT - DATAMASTER FORM #7

SUBJECT'S NAME _____ DATE OF TEST _____

OPERATIONAL CHECKLIST: DATAMASTER

SERIAL NO. _____ LOCATION OF INSTRUMENT _____

- 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.
- 2. Subject observed for at least 15 minutes by _____
No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.
- 3. Assure that the power switch is ON.
- 4. Press RUN button.
- 5. When display requests INSERT TICKET, insert evidence ticket.
- 6. Enter subject and officer information.
- 7. When display reads PLEASE BLOW and gives audible beep, take subject's breath sample.
- 8. When printer has completed printing out test result, remove ticket from printer. Attach printout to this report.

CERTIFICATION BY OPERATOR BAC _____

As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:

- 1. There was no deviation from the procedure approved by the department.
- 2. To the best of my knowledge the instrument was functioning properly.
- 3. I am authorized to operate the instrument.
- 4. No radio transmission occurred inside the room where and when this was being conducted.

NAME OF OPERATOR _____ PERMIT NO. _____ EXPIRATION DATE _____

WITNESS (IF ANY) _____ DATE _____

MO 580-1214 (4-12) AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis LAB 109 (R4-12)



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
**BLOOD ALCOHOL TEST REPORT - ALCO-SENSOR IV
WITH PRINTER**

FORM #8

SUBJECT'S NAME		DATE OF TEST
OPERATIONAL CHECKLIST: ALCO-SENSOR IV WITH PRINTER		
ALCO-SENSOR SERIAL NO.	PRINTER SERIAL NO.	LOCATION OF INSTRUMENT
<input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period. <input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____ No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with 15 minute observation period. <input type="checkbox"/> 3. Make sure printer is connected to Alco-Sensor IV. <input type="checkbox"/> 4. Turn printer on. <input type="checkbox"/> 5. Insert mouthpiece into Alco-Sensor IV. <input type="checkbox"/> 6. Observe temperature display, make sure temperature reading is between 10°C and 40°C. <input type="checkbox"/> 7. When "BLNK" is displayed on Alco-Sensor IV, air blank is taken. <input type="checkbox"/> 8. When "TEST" is displayed on Alco-Sensor IV, take subject breath sample. <input type="checkbox"/> 9. When "SET" is displayed on Alco-Sensor IV, press SET button. <input type="checkbox"/> 10. When printer has completed printing test result, tear off tape and fill in subject and officer information. <input type="checkbox"/> 11. Press red button to eject mouthpiece. <input type="checkbox"/> 12. Turn printer off. <input type="checkbox"/> 13. Attach printout to this report.		
CERTIFICATION BY OPERATOR		
BAC		
As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:		
<input type="checkbox"/> 1. There was no deviation from the procedure approved by the department. <input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly. <input type="checkbox"/> 3. I am authorized to operate the instrument. <input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this was being conducted.		
NAME OF OPERATOR	PERMIT NO.	EXPIRATION DATE
WITNESS (IF ANY)		DATE

MO 580-1213 (4-12) AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis LAB. 108

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
**BLOOD ALCOHOL TEST REPORT - ALCO-SENSOR IV
WITH PRINTER**

FORM #8

SUBJECT'S NAME		DATE OF TEST
OPERATIONAL CHECKLIST: ALCO-SENSOR IV WITH PRINTER		
ALCO-SENSOR SERIAL NO.	PRINTER SERIAL NO.	LOCATION OF INSTRUMENT
<input type="checkbox"/> 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period. <input type="checkbox"/> 2. Subject observed for at least 15 minutes by _____ No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with 15 minute observation period. <input type="checkbox"/> 3. Make sure printer is connected to Alco-Sensor IV. <input type="checkbox"/> 4. Turn printer on. <input type="checkbox"/> 5. Insert mouthpiece into Alco-Sensor IV. <input type="checkbox"/> 6. Observe temperature display, make sure temperature reading is between 10°C and 40°C. <input type="checkbox"/> 7. When "BLNK" is displayed on Alco-Sensor IV, air blank is taken. <input type="checkbox"/> 8. When "TEST" is displayed on Alco-Sensor IV, take subject breath sample. <input type="checkbox"/> 9. When "SET" is displayed on Alco-Sensor IV, press SET button. <input type="checkbox"/> 10. When printer has completed printing test result, tear off tape and fill in subject and officer information. <input type="checkbox"/> 11. Press red button to eject mouthpiece. <input type="checkbox"/> 12. Turn printer off. <input type="checkbox"/> 13. Attach printout to this report.		
CERTIFICATION BY OPERATOR		
BAC		
As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:		
<input type="checkbox"/> 1. There was no deviation from the procedure approved by the department. <input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly. <input type="checkbox"/> 3. I am authorized to operate the instrument. <input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this was being conducted.		
NAME OF OPERATOR	PERMIT NO.	EXPIRATION DATE
WITNESS (IF ANY)		DATE

MO 580-1213 (4-12) AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER services provided on a nondiscriminatory basis LAB. 108



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT - DATAMASTER DMT

FORM #11

LOCATION OF INSTRUMENT		INSTRUMENT SERIAL NUMBER	DATE OF TEST	TIME OF TEST
SUBJECT NAME			DATE OF BIRTH	
SEX	SUBJECT DRIVER'S LICENSE NUMBER		STATE	
ARRESTING OFFICER		ARRESTING OFFICER ID		
OPERATOR	OPERATOR PERMIT	PERMIT EXP DATE		

OPERATIONAL CHECKLIST: DATAMASTER DMT

- 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.
- 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.
- 3. Assure that the power switch is ON and the screen is displaying "PRESS ENTER TO START".
- 4. Press the Run button on the display screen.
- 5. Enter subject and officer information.
- 6. When display reads "Please Blow" and gives audible beep, insert mouthpiece and take the subject's breath sample.

SUBJECT TEST RESULTS

Blank area for subject test results.

COMMENTS

Blank area for comments.

CERTIFICATION BY OPERATOR

BAC

As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:

- 1. There was no deviation from the procedure approved by the department.
- 2. To the best of my knowledge the instrument was functioning properly.
- 3. I am authorized to operate the instrument.
- 4. No radio transmission occurred inside the room where and when this test was being conducted.

SIGNATURE OF OPERATOR	DATE
WITNESS (IF ANY)	DATE



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT – INTOXILYZER 8000

FORM #12

LOCATION OF INSTRUMENT		INSTRUMENT SERIAL NUMBER	DATE OF TEST	TIME OF TEST
SUBJECT NAME			DATE OF BIRTH	
SEX	SUBJECT DRIVER'S LICENSE NUMBER		STATE	
ARRESTING OFFICER		ARRESTING OFFICER ID		
OPERATOR		OPERATOR PERMIT	PERMIT EXPIRATION DATE	

OPERATIONAL CHECKLIST: INTOXILYZER 8000

- 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.
- 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.
- 3. Assure that the power switch is ON and the screen is displaying "Ready Mode".
- 4. Press the START TEST button.
- 5. Enter the subject and officer information.
- 6. When display reads "Please Blow Until Tone Stops/R", insert mouthpiece and take the subject's breath sample.

SUBJECT TEST RESULTS

COMMENTS

CERTIFICATION BY OPERATOR

As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:	BAC
<ul style="list-style-type: none"> <input type="checkbox"/> 1. There was no deviation from the procedure approved by the department. <input type="checkbox"/> 2. To the best of my knowledge the instrument was functioning properly. <input type="checkbox"/> 3. I am authorized to operate the instrument. <input type="checkbox"/> 4. No radio transmission occurred inside the room where and when this test was being conducted. 	

SIGNATURE OF OPERATOR	DATE
-----------------------	------

WITNESS (IF ANY)	DATE
------------------	------



MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BLOOD ALCOHOL TEST REPORT - INTOX EC/R II

FORM #13

LOCATION OF INSTRUMENT		INSTRUMENT SERIAL NUMBER	DATE OF TEST	TIME OF TEST
SUBJECT NAME			DATE OF BIRTH	
SEX	SUBJECT DRIVER'S LICENSE NUMBER		STATE	
ARRESTING OFFICER		ARRESTING OFFICER ID		
OPERATOR		OPERATOR PERMIT	PERMIT EXP DATE	

OPERATIONAL CHECKLIST: INTOX EC/R II

- 1. Examination of mouth conducted. If any substance is observed or indicated to be present, the substance observed or indicated must be removed prior to starting the 15 minute observation period.
- 2. Subject observed for at least 15 minutes by _____. No smoking, oral intake or vomiting during this time; if vomiting occurs, start over with the 15 minute observation period.
- 3. Assure that the power switch is ON and the screen is displaying "PRESS ENTER TO START".
- 4. Press the Enter button.
- 5. Enter subject and officer information.
- 6. When display reads "Please Blow/R", and gives audible beep, insert mouthpiece and take the subject's breath sample.

SUBJECT TEST RESULTS

Blank area for subject test results.

COMMENTS

CERTIFICATION BY OPERATOR

BAC

As set forth in the rules promulgated by the Department of Health and Senior Services related to the determination of blood alcohol by breath analysis, I certify that:

- 1. There was no deviation from the procedure approved by the department.
- 2. To the best of my knowledge the instrument was functioning properly.
- 3. I am authorized to operate the instrument.
- 4. No radio transmission occurred inside the room where and when this test was being conducted.

SIGNATURE OF OPERATOR	DATE
WITNESS (IF ANY)	DATE



AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 306.114, 306.117, 577.020, and 577.037, RSMo Supp. 2011. This rule was previously filed as 13 CSR 50-140.060 and 19 CSR 20-30.060. Original rule filed July 11, 1979, effective Oct. 12, 1979. Amended: Filed Feb. 8, 1982, effective May 13, 1982. Emergency amendment filed July 27, 1984, effective Aug. 6, 1984, expired Jan. 4, 1985. Amended: Filed Aug. 3, 1984, effective Dec. 13, 1984. Changed to 19 CSR 20-30.060, effective Aug. 15, 1986. Emergency rescission and emergency rule filed June 2, 1988, effective June 12, 1988, expired Sept. 19, 1988. Rescinded and readopted: Filed June 2, 1988, effective Aug. 25, 1988. Emergency amendment filed July 11, 1988, effective July 21, 1988, expired Sept. 19, 1988. Amended: Filed June 16, 1989, effective Sept. 11, 1989. Emergency amendment filed Sept. 5, 1991, effective Sept. 15, 1991, expired Jan. 12, 1992. Amended: Filed Sept. 5, 1991, effective Jan. 13, 1992. Amended: Filed Jan. 15, 1993, effective July 8, 1993. Emergency amendment filed Nov. 9, 1993, effective Nov. 19, 1993, expired March 18, 1994. Emergency amendment filed March 1, 1994, effective March 11, 1994, expired July 8, 1994. Emergency amendment filed July 12, 1994, effective July 22, 1994, expired Nov. 18, 1994. Emergency amendment filed Oct. 28, 1994, effective Nov. 7, 1994, expired March 6, 1995. Amended: Filed July 22, 1994, effective Dec. 30, 1994. Changed to 19 CSR 25-30.060 Jan. 1, 1995. Emergency amendment filed March 3, 1995, effective March 13, 1995, expired July 1, 1995. Emergency amendment filed June 21, 1995, effective July 1, 1995, expired Oct. 28, 1995. Amended: Filed March 3, 1995, effective July 30, 1995. Emergency amendment filed March 15, 1996, effective March 25, 1996, expired Sept. 20, 1996. Amended: Filed March 15, 1996, effective Aug. 30, 1996. Amended: Filed Aug. 25, 1997, effective Feb. 28, 1998. Amended: Filed May 31, 2012, effective Dec. 30, 2012.*

**Original authority: 192.006, RSMo 1993, amended 1995; 306.114, RSMo 1993, amended 2004, 2005, 2008; 306.117, RSMo 1993, amended 2005, 2008; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*

Eckhoff v. Director of Revenue, 745 S.W.2d 815 (Mo. App. 1988); Director of Revenue v. Martin, 752 S.W.2d 453 (Mo. App. 1988). For purpose of breath analysis tests, the procedural components of these tests include the testing techniques and methods, the qualifications of the person administering the tests, and the nature and description of the equipment and devices to be used. The designation

of approved suppliers of test ampoules for breathalyzer test was procedural only and would be applied retrospectively.

Stuhr v. Director of Revenue, 760 S.W.2d 127 (Mo. App. 1988). Though the operational checklist which was used differed from the rule, the checklist exceeded the minimum established requirements and provided a proper foundation for admitting the results of the breath test.

Stuhr v. Director of Revenue, 760 S.W.2d 127 (Mo. App. 1988); Bradford v. Director of Revenue, 735 S.W.2d 208 (Mo. App. 1987). The time and date component of the BAC Verifier is a separate component from that of the sample collection portion of the unit. The wrong date or time on the printout is not evidence of a malfunction.

19 CSR 25-30.070 Approval of Methods for the Determination of Blood Alcohol Content From Samples of Blood, Saliva, or Urine

PURPOSE: This rule establishes the methods and analytical principles by which determination of blood alcohol content from samples of blood, urine, or saliva are approved.

(1) Samples of blood, saliva, or urine shall be collected in accordance with the provisions of sections 577.029, and 306.111–306.119, RSMo, and a sufficient volume of sample shall be collected to provide for duplicate testing.

(A) Blood samples shall be collected in commercially-manufactured blood collection tubes that contain sodium fluoride or an equivalent preservative, as well as potassium oxalate, sodium citrate, or an equivalent anticoagulant.

(B) Urine specimens shall be collected in clean, dry containers. If a preservative, such as sodium fluoride, is employed, a comment stating the type and amount of preservative used should accompany the specimen. Specimens shall be refrigerated or frozen if not tested within one (1) day of collection.

(C) Saliva specimens shall be collected in a commercially-manufactured collection device and collected according to collection device instructions.

(2) Methods based on the following analytical principles are approved for the determination of blood alcohol content from a sample of blood, saliva, or urine:

(A) Chromatographic identification and quantization of alcohols, in liquid or vapor phase;

(B) Spectrophotometric or colorimetric measurement of the conversion of alcohol to acetaldehyde by alcohol-dehydrogenase; or

(C) The quantitative determination of the reduction of dichromate in acid solution by ethanol.

(3) Blood, saliva, and urine tests for the determination of blood alcohol content performed prior to the effective date of this rule shall be considered valid under this rule if such tests were completed in compliance with the rules in effect at the time the test was conducted.

AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 306.114, 306.117, 577.020, 577.037, RSMo Supp. 2011. This rule previously filed as 19 CSR 20-30.070. Emergency rule filed May 21, 1987, effective May 31, 1987, expired Sept. 28, 1987. Original rule filed May 21, 1987, effective Aug. 27, 1987. Emergency rescission filed Aug. 14, 1987, effective Aug. 26, 1987, expired Dec 11, 1987. Emergency amendment filed Feb. 16, 1988, effective Feb. 26, 1988, expired June 24, 1988. Amended: Filed Feb. 16, 1988, effective April 28, 1988. Changed to 19 CSR 25-30.070 Jan. 1, 1995. Emergency amendment filed May 10, 2001, effective May 22, 2001, expired Nov. 17, 2001. Amended: Filed May 10, 2001, effective Oct. 30, 2001. Amended: Filed May 31, 2012, effective Dec. 30, 2012.*

**Original authority: 192.006, RSMo 1993, amended 1995; 306.114, RSMo 1993, amended 2004, 2005, 2008; 306.117, RSMo 1993, amended 2005, 2008; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*

State v. Kummer, 741 S.W.2d 285 (Mo. App. 1987). The rules of the Department of Health approving methods of analysis for determining blood alcohol content are procedural and relate to the admissibility of evidence, and thus are to be applied retrospectively.

19 CSR 25-30.080 Approval of Methods for the Analysis of Blood, Saliva, and Urine for the Presence of Drugs

PURPOSE: This rule establishes the approved methods for the analysis of blood, saliva, and urine for the presence of drugs.

(1) Samples of blood, saliva, or urine shall be collected in accordance with the provisions of sections 577.029, and 306.111–306.119, RSMo, and a sufficient volume of sample shall be collected to provide for duplicate testing.



(A) Blood samples shall be collected in commercially-manufactured blood collection tubes that contain sodium fluoride or an equivalent preservative, as well as potassium oxalate, sodium citrate, or an equivalent anti-coagulant.

(B) Urine specimens shall be collected in clean, dry containers. If a preservative, such as sodium fluoride, is employed, a comment stating the type and amount of preservative used should accompany the specimen. Specimens shall be refrigerated or frozen if not tested within one (1) day of collection.

(C) Saliva specimens shall be collected in a commercially-manufactured collection device and collected according to collection device instructions.

(2) An individual shall have a valid Type I permit in order to perform analyses of blood, saliva, and urine for the presence of drugs.

(3) The laboratory in which these analyses are performed shall have a director who shall assume full responsibility for the accuracy of tests and reports.

(4) The laboratory in which these analyses are performed shall have, by July 1, 2014, a national accreditation through the College of American Pathologists (CAP), the American Board of Forensic Toxicologists (ABFT), or through the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/Lab). This accreditation shall continue as long as the laboratory performs analysis of blood, saliva, or urine for the presence of drugs and shall include an annual proficiency test on each biological matrix (blood, saliva, or urine) tested. A copy of the accreditation for each laboratory shall be supplied to the State Public Health Laboratory upon request.

(5) The following methodologies are approved for the analysis of blood, saliva, and urine for the presence of drugs:

- (A) Enzyme immunoassay (EIA);
- (B) Fluorescence immunoassay (FPIA);
- (C) Radioimmunoassay (RIA);
- (D) Gas-liquid chromatography (GC);
- (E) Thin layer chromatography (TLC);
- (F) High-pressure liquid chromatography (HPLC);
- (G) Ultra violet-visible spectrophotometry (UV/Vis);
- (H) Gas chromatography/mass spectrometry (GC/MS);
- (I) Liquid chromatography/mass spectrometry (LC/MS);
- (J) Enzyme-linked immunosorbent assay (ELISA); and

(K) Cloned enzyme donor immunoassay (CEDIA).

(6) All positive results found upon initial testing shall be confirmed by a method employing mass spectrometry (MS).

(7) Blood and urine tests for the presence of drugs performed prior to the effective date of this rule shall be considered valid under this rule if such tests were completed in compliance with the rules in effect at the time the test was conducted.

AUTHORITY: sections 192.006 and 577.026, RSMo 2000, and sections 306.114, 306.117, 577.020, 577.037, RSMo Supp. 2011. This rule previously filed as 19 CSR 20-30.080. Original rule filed July 15, 1988, effective Sept. 29, 1988. Changed to 19 CSR 20-30.080 Jan. 1, 1995. Emergency amendment filed May 10, 2001, effective May 22, 2001, expired Nov. 17, 2001. Amended: Filed May 10, 2001, effective Oct. 30, 2001. Amended: Filed May 31, 2012, effective Dec. 30, 2012.*

**Original authority: 192.006, RSMo 1993, amended 1995; 306.114, RSMo 1993, amended 2004, 2005, 2008; 306.117, RSMo 1993, amended 2005, 2008; 577.020, RSMo 1977, amended 1982, 1983, 1996, 1998, 2001, 2006; 577.026, RSMo 1982; and 577.037, RSMo 1982, amended 1983, 1988, 1993, 1996, 2001.*