

The Company

Established in 1997, Alcohol Monitoring Systems, Inc. (AMS) manufactures and markets the Secure Continuous Remote Alcohol Monitor®—or SCRAMx®. SCRAMx is a non-invasive alcohol-detection system that provides 24-hour-a-day alcohol monitoring, with testing every 30 minutes, regardless of the offender's location. The system also provides optional House Arrest/Home Detention monitoring with the same bracelet and base station.

Based in Littleton, Colorado, AMS employs people in both their headquarters facility and in their sales field offices throughout the U.S. A privately-funded company, AMS currently markets and distributes the SCRAM System in the United States and limited availability in eastern Canada.

Product History

First Generation: AMS did initial BETA testing of the SCRAM System beginning in fourth quarter of 2003. The company officially launched the first generation of SCRAM to the corrections market in April of 2003. The bracelet was two-sided and weighed 8 ounces, and testing was done once each hour.



Second Generation: In 2008, AMS released the second generation of SCRAM, with a smaller, single-sided bracelet weighing 5.6 ounces. The testing protocol increased in frequency, with automatic sampling occurring every 30 minutes.



Third Generation: In February of 2010, AMS released SCRAMx®, a dual-function system that incorporates RF, or “House Arrest” monitoring with the transdermal alcohol system. The bracelet weighs 5.8 ounces and is similar in look and feel to the second generation of the SCRAM Bracelet. The SCRAMx release also replaced the SCRAM Modem with a SCRAMx Base Station, which allows location monitoring in addition to the daily downloads for alcohol monitoring.



The Science: Transdermal Alcohol Testing

SCRAMx is the first alcohol testing system to use Transdermal Analysis to measure for alcohol consumption. When we consume alcohol, ethanol migrates through the skin, unmetabolized, and is excreted in Insensible Perspiration—defined as the constant, unnoticeable excretion of sweat through the skin. The SCRAMx System samples that Insensible Perspiration every 30 minutes.

The Technology: Three Integrated Components

The SCRAMx Bracelet

- Weighs 5.8 ounces, is strapped to a subject's ankle and worn 24 hours a day.
- Contains a fuel cell, just like a breath testing device, which measures ethanol vapor as it migrates through the skin in order to determine if there's been alcohol consumption. These measurements are taken every 30 minutes.
- Incorporates three key tamper detection systems: infrared, temperature and physical attachment systems, that ensure the data is accurate, unobstructed and from the proper subject.
- Includes electronics for system control, as well as collecting, storing and transferring data via an RF link.
- Date stamps and time stamps every reading, storing them in a memory chip within the bracelet until the data is transmitted, via the SCRAMx Base Station, to SCRAMNET.

The SCRAMx Base Station

COMMUNICATION OF ALCOHOL READINGS

The SCRAMx Base Station is placed in the client's home or another approved location, such as a place of work. At a pre-scheduled time each day, the subject is required to be within 30 feet of the SCRAMx Base Station, at which time the bracelet will begin to "communicate" with the Base Station via an RF frequency. The Base Station will retrieve all available data from the SCRAMx Bracelet.

When a data transmission occurs, the SCRAMx Base Station sends all data to SCRAMNET, either via SCRAMx Wireless™, which requires only an electrical outlet and transmits data via a secure, wireless data connection; or via a standard telephone line using a secure telephone network. Alcohol readings, tamper alerts and diagnostic data are all communicated to SCRAMNET, and in turn, SCRAMNET uses the SCRAMx Base Station to download monitoring and reporting schedules to the SCRAMx Bracelet.

COMMUNICATION OF RF/HOUSE ARREST/HOME DETENTION READINGS

When an offender is sentenced to house arrest monitoring, the system is activated so that at pre-approved and pre-scheduled times, the SCRAMx Bracelet and Base Station continuously communicate with each other, and in turn the Base Station is continuously reporting the results of that communication. Times may be programmed each day to allow the offender to be away from the home, usually during pre-approved and confirmed work hours. Should any deviation from that communication occur during hours the offender is to be in the home, an alert will be sent to SCRAMNET to report the violation.

SCRAMNET

SCRAMNET is a web-based application that is managed and hosted by AMS. SCRAMNET is accessed via the Internet using standard web browsers, so monitoring personnel can access and control the testing, synchronization and reporting schedules for each individual subject, at any time, from any location. During the course of each day, SCRAMNET will notify the supervising authority of any possible alcohol readings, tamper alerts or equipment malfunctions.