

GSR, Number Restoration & Trace Metal

Incidents involving firearms are receiving more scrutiny. Therefore, it is more critical to use methods to link weapons to scenes, individuals, and possibly other crimes. Since many illegally-owned weapons have serial numbers that are often destroyed or marred, serial number restoration can recover evidence that may link the weapon to a previous owner or other crime. Gunshot residue, the result of the firing of a weapon or explosion, can be used to possibly link a perpetrator or victim to a weapon and/or scene. We provide tools and kits to accomplish these missions as well as other methods to establish links between weapons and crime.



Firearm, Toolmark ID & Shooting Reconstruction Course



This advanced course will introduce the methods used by firearm and toolmark examiners. Students will examine large caliber fired bullets, such as .45 caliber; rifle and various shotshell components; large caliber cartridge cases; and types of toolmarks, including pry bars, screwdrivers, and knives. Students will learn how examiners obtain information that may aid investigators in searching for a firearm or tool, which was used in a crime, including how a fired bullet, cartridge case, or tool may be matched to a particular firearm or tool. The class will also explore the reconstruction of shooting incidents, covering range determinations, and direction of fire and gunshot residue identification.



For more information about this and all other training courses, visit www.sirchie.com or call us at (800) 356-7311.

Gunshot Residue Analysis (GSR)

When a weapon is fired, gunpowder residues are blown back towards the shooter. In most cases, trace amounts of residue are left on the shooter's hand. Detecting these residues can give you valuable information about who fired

the weapon.

To detect GSR, samples must be collected off a subjects hands and sent to a laboratory for analysis using Scanning Electron Microscopy / Energy Dispersive X-ray (SEM/EDX). This testing determines the presence of antimony, lead, and barium, quantities of each particle, and the morphology of the particles, which are unique to GSR.

Another test is the Atomic Absorption Analysis (AAA), developed in the 1970s. While this test will tell you if barium, antimony, and lead are present, it will not tell you the form of the particles. Without knowing the form, other residue, such as brake dust or lead batteries can produce a positive result.

Note: If you are going to use AAA method tests, please verify that your lab will process the AAA samples. Most state labs no longer process AAA samples.

Scanning Electron Microscopy Kit (SEM)

This collection kit contains all the necessary items to recover residue from a suspect's hands or clothing. Items should then be sent to your lab for the SEM test.



No. GRA200

Primer Residue Collection Kit for SEM

No. GRA200S Primer Residue Collection Kit for SEM (# Studs)

Atomic Absorption Analysis Kit (AAA)



No. AAA100

Atomic Absorption Analysis Kit, 10 tests

Combination Kit: AAA and SEM Analysis

This kit offers the necessary tools for the AAA and the SEM analysis tests. It's ideal for departments who use both testing methods.



No. GRA100

Primer Residue Collection Kit for SEM & AAA

Primer Residue Collection Kit for SEM

These tests are specific for SEM analysis. Each features two studs. All tests should be submitted to lab for SEM analysis.



No. GRA300

Primer Residue Collection Kit for SEM, 2 Stud

No. GRA300S

Primer Residue Collection Kit for SEM, 2 # Studs





Gunpowder Particle Detection Kit

Determining the distance of firearm discharge is an important factor in crime scenes. This kit uses nitrate ions to distinguish between close-range and distant firearm discharge. After you develop the nitrate particles, you should photograph test paper for evidence documentation.



No. GPD100

Gunpowder Particle Detection Kit

Firearms and Trace Metal Detection

Master Firearms Detection Kit

To investigate any crime involving firearms, you'll need this kit. Tools and tests included are primer residue detection and if there was contact with a weapon. To make your life easier, all components are pre-measured, packaged, and contaminant-free.



No. MFD200

Master Firearms Detection Kit

Trace Metal Detection Kit

With this kit, you can make metal trace patterns visible on a suspect's skin or clothing. Once the suspected area is treated with

a test solution (included in the kit), you can illuminate with shortwave ultraviolet (254nm) light.



No. TMDT100

Trace Metal Detection Kit

Explosives Residue Test Kit

Get a quick screening for explosive residue to verify the presence of nitrates. Due to improvements in testing techniques, this process is extremely sensitive and ideal for you to use in the lab or the field.



No. ERTT10

Explosives Residue Test Kit

Gunpowder Particle Test Kit

Use this kit as a fast, reliable field test to detect trace nitrates found in gunpowder. It's a presumptive test in a simple-to-use pouch with results appearing in seconds and ideal for onthe-spot testing at crime scenes or wherever you apprehend a suspect. Additional tests should be performed & sent to lab for verification.

Note: All GSR lab samples should be taken before testing with Blue View.

No. BV100

Blueview Gunpowder Particle Test Kit, 10 tests

Serial Number Restoration

Serial Number Restoration Gels/Liquids

You'll be able to restore metal surfaces in the field with our Restor-A-Gel. With a gel consistency, you can apply it with a spatula to either a vertical or horizontal surface. It can also be used with the Field and Lab Restoration Accelerator (284A). Available for steel, aluminum, or copper.



No. RAG1001	Restoration Gel for Steel, 1 oz.
No. RAG2001	Restoration Gel for Aluminum, 1 oz.
No. RAG3001	Restoration Gel for Copper, 1 oz.
No. NIA	Restoration Liquid for Aluminum, 0.25 oz.
No. NIC	Restoration Liquid for Copper, 0.25 oz.
No. NIS	Restoration Liquid for Steel, 0.25 oz.

Restor-A-Gel Number Restoration Kit

Use this kit to restore serial numbers and other identifying marks that suspects have tried to destroy. The kit contains everything you need for iron and non-iron metals.



No. RAG500

Restora-Gel Number Restoration Kit

Serial Number Restoration Reagents for Plastics

With Resto-Plas, you can restore stamped serial numbers on most commercially available plastics, including TVs and stereo equipment. Easy-to-use in the field, this kit contains six tests.



No. RPR1006

Restoration Reagents for Plastics, 6 ea.

Field and Lab Restoration Accelerator

To restore serial number and other identifying marks a suspect removed by filing or grinding, use this accelerator. It operates via "D" batteries and can be taken anywhere; perfect for field or lab use.





Master Number Restoration Kit

You won't need any other tools with this master kit to restore serial numbers or identifying marks. You'll be able to find marks on iron, steel, aluminium, copper, and their alloys with all the necessary equipment in the field.



No. MNR100

Master Number Restoration Kit