

Procedure for Mini-CrimeScope

1.0 Purpose - This procedure specifies the method of using a Mini-CrimeScope in forensic casework to observe body fluids.

2.0 Scope - This procedure applies to those Forensic Scientists who have been released to use the Mini-CrimeScope in forensic casework.

3.0 Definitions

- **Alternate light source (ALS)** - An instrument that uses wavelengths of light that are not visible to the naked eye to enhance potential stains on evidence. The Mini-CrimeScope is an example of an ALS.

4.0 Equipment, Materials and Reagents

- MCS – 400 Mini-CrimeScope (or equivalent)
- Blackout shades if applicable
- Goggles (orange, clear and yellow)
- Permanent marker

5.0 Procedure

5.1 Darken the room by using blackout shades if windows are present. Turn off the lights.

5.2 Set the filter wheel to “White light” as a default when not using the unit.

5.3 Turn on the main switch (in the back). Manually check that there is air circulation on both exhaust top holes and on the fan located above the light guide connection.

5.4 Aim the wheel towards a wall and turn on the lamp switch (on the front of the unit). Within 1 - 2 minutes a bright spot should appear. If the spot is weak, verify that the intensity knob on the front of the unit (located below the light guide connection) is open all the way.

5.5 Put on the applicable pair of goggles. Scan the item of evidence with the light beam set at one of the filters and look for areas that glow when the beam hits the stain. The optimal filter used can depend on the material the stain is on and the stain itself. The filters can be switched from one setting to the next to better visualize the stain.

5.6 Guide used for body fluid detection.

5.6.1 Body fluids that may be detected are semen, saliva, sweat, vaginal fluids and feces.

5.6.2 Blood does not fluoresce: it absorbs at 415 nm and reflects at 254 nm.

5.6.3 On most clothes and rugs use “445/455/CSS/515” and Orange goggles.

5.6.4 For dark surfaces and for saliva use “UV” and Clear/Yellow goggles.

5.7 Mark the areas that glow for further testing with a permanent marker. These areas will be evaluated for additional body fluid testing.

5.8 When the analysis is done, turn off the lamp (front switch) and let the fans run for 3 - 5 minutes (or until lamp/casing is cool).

5.9 Turn off main switch (back switch). Do not restart the lamp when the bulb is still hot. An arcing noise may be heard when re-starting too early.

5.10 If power is lost in the building, turn the lamp switch off, but leave the fan switch on so the lamp will continue to cool when the power is restored.

5.11 Reporting Guidelines

This phrase will be used when only a visual examination is performed for blood, semen and/or saliva and no stains of interest are observed and no chemical analysis is performed.

A visual examination (with an alternate light source, if used) of _____ (Item(s) _____) failed to reveal the presence of blood, semen like and/or saliva like stains.

This phrase will be used when a visual examination is performed (using an ALS) for semen and no stains of interest are observed and chemical analysis is performed.

A visual examination (with an alternate light source, if used) of _____ (Item(s) _____) failed to reveal the presence of semen like stains; however, sample(s) were taken for further analysis.

6.0 Limitations – Many items/substances other than body fluids will fluoresce using the Mini-CrimeScope.

7.0 Safety - Protective goggles shall be worn when operating the Mini-CrimeScope.

8.0 References

Mini-CrimeScope manual

Forensic Biology Section Procedure for Aseptic Technique and Contamination Control

Forensic Biology Section Body Fluid training documents

Forensic Biology Section Procedure for Calibration and Maintenance

9.0 Records - N/A

10.0 Attachments - N/A

Revision History		
Effective Date	Version Number	Reason
09/17/2012	1	Original Document
12/18/2013	2	Header – added issuing authority
08/29/2014	3	5.11 – added reporting statement for further testing being performed after negative ALS