Technical Procedure for the CrimeScope

1.0 Purpose - This procedure describes how to examine evidence with the CrimeScope alternate light source.

2.0 Scope - This procedure applies to all evidence that is examined with the CrimeScope.

2.1 The CrimeScope can assist in searching for latent fingerprints, palmprints, footprints, footwear impressions and other impressions. Fingerprint residue, certain biological fluids, trace evidence and other compounds and substances may fluoresce naturally when exposed to different wavelengths of light. In addition, the CrimeScope may be used with fluorescent dyes to develop and enhance latent impressions. The CrimeScope may be used in the laboratory and when providing technical field assistance.

3.0 Definitions – N/A

4.0 Equipment, Materials and Reagents

4.1 Equipment and Materials

- CrimeScope and protective goggles
- Camera equipment

4.2 Reagents – N/A

5.0 Procedure – Items of evidence shall be subjected to the light source prior to using processing techniques, if utilizing the light source for inherent luminescence examination. This will serve to detect any inherent latent impressions and to reveal the color and the intensity of any background fluorescence. The background fluorescence will allow the analyst to determine which fluorescent dye will be appropriate to use in the sequence of processing evidence. The CrimeScope shall also be used in conjunction with fluorescent dyes and chemicals to develop and photograph latent impressions.

5.1 Start Up Procedures

5.1.1 Plug the unit into a standard electrical outlet.

5.1.2 Attach the fiber optic cord.

5.1.3 Turn the power rocker switch ON. This will activate the fan system of the unit (the fan sound will be evident in a few seconds).

5.1.4 Turn ON the Power Control Switch. This will activate the lamp (a clicking sound will indicate the lamp is activated and the unit will initiate the light beam).

5.2 Shut Down Procedures

5.2.1 Turn the lamp power switch to the OFF position.

5.2.2 Allow the unit to cool, with the fan running, for approximately ten (10) to fifteen (15) minutes.

5.2.3 After the unit has cooled, check the body of the unit to ensure that it is cool.

5.2.4 Turn the fan power switch to the OFF position.

5.3 Wavelength and Filter Selection

5.3.1 To select the desired wavelength, turn the wavelength control or selector to the desired setting.

5.3.2 The wavelength in use will be displayed on the front of the unit and/or on the optic handheld attachment.

5.3.3 Various wavelengths and filter selections shall be used to determine which is most appropriate for the item of evidence being examined.

5.4 Examination of Evidence

5.4.1 While wearing goggles, scan the item of evidence with the light source. A strong hand held magnifier may be utilized to enhance visualization of the latent impressions.

5.4.2 If a latent impression is developed, immediately note the location on the item and direct the light source away from the area.

5.4.3 Position the area of interest under the camera and place the appropriate filter over the lens of the camera (see technical procedures for the camera used).

5.4.4 Direct the light source over the area to be photographed and begin photography.

5.4.5 After each photograph is taken, redirect the source away from the impression to avoid destruction of the area or surface. Prolonged exposure to the beam may cause the latent impression to photo-degenerate over a short period of time until eventually the impression disappears.

5.4.6 After the impression is photographed, further techniques may be applied to enhance or develop additional impressions, if applicable. (See technical procedures for porous and nonporous evidence.)

5.5 Standards and Controls – N/A

5.6 Calibration – N/A

5.7 Sampling – N/A

5.8 Calculations – N/A

5.9 Uncertainty of Measurement – N/A

6.0 Limitations - N/A

7.0 Safety – Eye protection shall be worn when utilizing a laser and/or alternate light source. This includes any individual who may be in the same room or area. This is particularly important when examining reflective surfaces as the light source may reflect and result in eye damage.

7.1 Never look directly into any light source as this will cause eye damage.

7.2 Do not expose the light source to the skin; it will not immediately cause harm, but prolonged exposure may have long term effects.

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9.0 Records – N/A

10.0 Attachments – N/A

Revision History		
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