

<b>Section I</b>	<b>Portable Ultra-Violet Light Source</b>	<b>Subsection 4</b>
------------------	---	---------------------

**Name of Procedure:**

Portable Ultra-Violet Light Source

**Suggested Uses:**

This procedure is used to examine items of evidence for the presence of latent fingerprints, palmprints, footprints, footwear and other impressions. The Ultra-Violet Light Source will often be a useful tool in discovering latent impressions which have compounds or residues which will fluoresce under the influence of a directed light. This type of light source may also be utilized with florescent dyes to develop and enhance latent impressions.

**Equipment Needed to Perform Procedures:**

A - Ultra-Violet Light Source

B- Camera Equipment

**Chemicals Needed For Preparation of Chemical Solution(s):**

Not Applicable

**Formula/Directions for Preparation of Chemical Solution(s):**

Not Applicable

**Processing Procedures for Application to Item(s) of Evidence:**

Items of evidence should be subjected to the light source prior to applying processing techniques in an attempt to detect any latent impressions. Numerous other processing techniques should be utilized and the Ultra-Violet light source used where applicable to develop and photograph any latent impressions. The use of florescent dyes has been found to be one of the most effective ways of developing latent impressions and should be utilized to develop latent impressions as often as possible. The portable Ultra-Violet light source is relatively easy to use in the analysis of evidence.

**Operation Procedures:**

1. Turn the unit on and allow the unit to activate.

<b>Section I</b>	<b>Portable Ultra-Violet Light Source</b>	<b>Subsection 4</b>
------------------	---	---------------------

2. Once the examination is complete, turn the unit off and place in the appropriate storage area.

**Examination of Evidence:**

1. Wearing safety goggles with the appropriate filter, scan the item of evidence with the light beam (a strong hand held magnifier may be utilized to enhance visualization of the latent impressions).
2. If a latent impression is noted, immediately note the location and direct the light beam away from the area.
3. Place the area noted under the appropriate camera and place the laser filter over the lens of the camera.
4. Direct the light beam over the area to be photographed and begin photography (a number of photographs may be taken at various times and F-stops to record the latent impression).

**Steps to Preserve Developed Impressions:**

The most appropriate methods of preserving developed impressions is through photography, using the appropriate techniques (See Photographic Equipment/Procedures), and electronic recording (See Image Processing). The utilization of a 35 mm, 2 1/4, MP-4, or CU5 camera will suffice for developed impressions; however, all impressions must be photographed using a laser filter to be recorded on the film.

Negatives produced from the use of Polaroid film are the most effective manner to accurately reproduce the developed impressions (See Photographs/Negatives Preservation).

**Safety Concerns:**

Do not expose the light beam to the skin as it will not immediately cause harm, but may have long term effects with prolonged exposure.

Eye protection should be worn at all times and this includes any other individual(s) who may also be in the same room or area. This is particularly important when examining reflective surfaces as the beam may be reflected and result in eye damage.

**Storage and Location of Chemicals and Solutions:**

Not Applicable

<b>Section I</b>	<b>Portable Ultra-Violet Light Source</b>	<b>Subsection 4</b>
------------------	---	---------------------

**Shelf Life:**

Not Applicable

**Other Information:**

The Ultra-Violet Light may be used as one of the first steps in analyzing items of evidence. This will serve to detect any inherent latent impressions and to show the color and the intensity of the surface's background. This will allow the analyst to determine which florescent dye will be appropriate to use in the sequence of processing evidence.

The portable Ultra-Violet light source may be used in the laboratory or when providing Technical Field Assistance.