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## TECHNICAL INFORMATION

### RUVIS Companion Laboratory Illuminator Catalog No. SKSUV13

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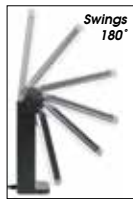
#### INTRODUCTION

The SKSUV13 was specifically designed for use with SIRCHIE's *KRIMESITE™ IM-AGER*. Portability and utility are the most outstanding features of this new Companion Laboratory Illuminator. The SKSUV13 provides shortwave UV light at an approximate frequency of 454nm. This 110V AC UV illuminator is equipped with one 13-watt germicidal lamp. The illuminator automatically turns on by lifting the head. It is capable of swinging 180°, easily accommodating a variety of usage situations.

#### PROCEDURE

The SKSUV13 is for use in the laboratory when the need for short-wave UV light is indicated. The light source is easily powered ON and OFF by lifting the head up and down.

**SPECIAL PRECAUTION:** *Avoid the use of shortwave UV light (254nm) in the presence of visible bloodstains if subsequent DNA analysis is a consideration. Collect blood samples prior to shortwave UV light exposure.*



<b>Application</b>	Source of shortwave UV light (254nm) in the laboratory for use with the <i>KRIMESITE™ IMAGER</i> .	
<b>Hazards/Safety Info</b>	<p><b>Caution!</b> Exposure to UV-C lamps is hazardous and protective equipment for the eyes and exposed skin must be worn.</p> <p><b>Warnings</b></p> <ul style="list-style-type: none"> <li>• To avoid hazard of fire or shock, plug unit directly into appropriate AC outlet. DO NOT use an extension cord.</li> <li>• Do not touch the lamp during operation as it can become hot to the touch.</li> <li>• Turn OFF before cleaning or maintenance.</li> <li>• Do not use ANY non-recommended substances to clean the unit, as it may damage the components (see MAINTENANCE).</li> <li>• Do not let water penetrate the housing when cleaning. Do not immerse the unit in any liquid.</li> </ul>	
<b>Specifications</b>	<p><b>Physical Data:</b>  Swinging Lamp Head: 180°  Construction: Rugged ABS  Dimensions:  10.5"H x 3.25"D x 3.4"W  (27.7cm x 8.3cm x 8.6cm)  Net Wt.: 2.35 lbs. (1.04kg)</p>	<p><b>Electrical Data:</b>  Input Voltage: 110V AC/60Hz  UV Lamp: 13-watt  Current: 0.3A  Power Supply: 2-prong power cord  Switch: Internal ON/OFF, lamp illuminates when head lifted</p>

## LAMP REPLACEMENT

Use only Cat. No. SKSUV13B 13-watt (254nm) Replacement Lamp in this unit.

1. Unplug unit and lift lamp head to gain access to lamp.
2. Grasp the lamp between thumb and forefinger.
3. Rock the lamp gently from side-to-side while lifting it from its socket.
4. Place a new lamp into the socket and press down firmly until it snaps into place.



SKSUV13 is paired up with the KRIMESITE™ IMAGER to reveal latent prints on a suspect gun.

## MAINTENANCE

Other than replacing the lamp, the only other maintenance recommended is to keep the outer shell clean using a mild detergent solution. Do not use household or industrial cleaners as they may damage the components.. **NOTE:** Should any other problems arise, contact the factory (Customer Service) for return authorization at (919) 554-2244.



## **PRECAUTIONS: UV RADIATION**

The three areas of ultraviolet radiation are UV-C at 100 to 280nm, UV-B at 280 to 315nm, and UV-A at 315 to 400nm. UV-C is the shortest wave ultraviolet radiation and UV-A is the longest wave ultraviolet radiation.

The retina of the eye is not very vulnerable in the ultraviolet or the far-infrared portions of the spectrum. It is the cornea and the lens that absorb ultraviolet. High exposure levels can permanently damage these structures of the eye. Intermediate levels in the UV (200-320nm) cause greater injury to the cornea, which is severe but temporary. The injury, photokeratitis, may last for only one or two days but is extremely painful. Near-ultraviolet (long wavelength UV-A) is absorbed heavily in the lens of the eye. Damage to this area of the eye may not be evident for many years and may have lasting effects.

Human skin is also susceptible to radiation injury. This susceptibility occurs in the range of radiant energy present in the ultraviolet spectral region of 400-320nm. This type of radiation can cause severe sunburn. Certain photosensitizing chemicals greatly increase the sensitivity of the skin. Previous exposures to specific wavelength bands that are generally in the long wavelength ultraviolet and visible portion of the spectrum also sensitize the skin. Some orally administered drugs such as tetracyclines and common pain relievers also cause photosensitization.

The factors predisposing individuals to possible harm from ultraviolet radiation are:

- Sensitivity of the individual
- The length of exposure
- Intensity of the ultraviolet light source
- Light source/surface distance

Recommended Personal Protective Equipment:

- UV absorbing face shield or glasses with side shields
- Long sleeved laboratory coat or overalls
- Opaque cotton or garamid fiber gloves

SIRCHIE shortwave UV lamps utilize low-pressure mercury lamps, which emit radiation in the UV-C (254nm) spectrum. Any amount of exposure to these lamps should be considered hazardous and protective equipment for the eyes and exposed skin must be worn. When using any UV lamp, avoid needless exposure to radiation and turn the lamp off when not in use.