SpectraScanner™

The SpectraScanner™ is a Near-UV and Near-IR viewer with dual LCD displays. It is ideal for field operation in scenes with bright ambient non-UV or non-IR lighting. The SpectraScanner images in either the 300-400nm or the 780-1100nm band of the spectrum, enabling the visualization of many interesting surface phenomena that are invisible or faint to the unaided eye
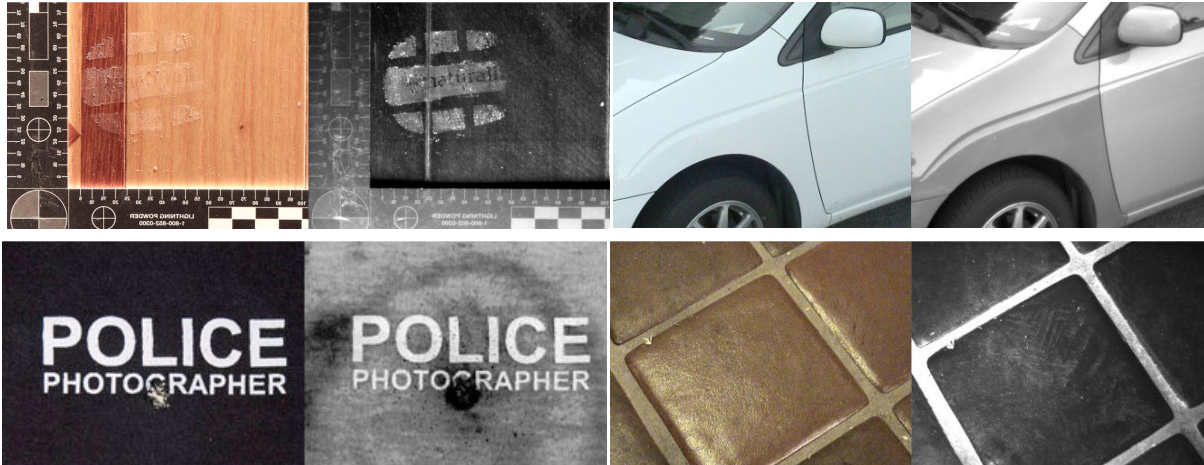
Benefits:

Runs on a high-energy lithium-ion battery for long operational times
Live UV image presented on dual displays for reduced eyestrain
Rubber eyecups shield the user's eyes and the display from ambient light
UV and IR images unaffected by ambient lighting
C-mount lens system compatible with commercial video optics
Dual-band LED illuminators (396nm UV and 830nm IR) for night/indoor viewing

Specifications:

640x480 pixel UV or IR video
23 degree horizontal FOV with 16mm lenses
Dual 640x480 backlit LCD displays with eyecups
Weight: 1.5 lbs

Visible and UV or IR image pairs, clockwise from top left: Dusty shoe print on wood floor (UV), Toyota Prius with repainted fender (UV), shoe mark of epoxy residue on tile floor (UV), gunshot residue on dark shirt (IR)

- *Features and specifications subject to change without notice*

Forensic Applications of the SpectraScanner

The SpectraScanner is ideally suited for crime scene investigation using reflected-ultraviolet and near-infrared imaging methods. Imaging in these wavebands can reveal many interesting features in a crime scene, including features that are difficult or impossible to detect in any other practical way.

Both Reflected-UV imaging and Near-IR imaging are powerful forensic investigations tools:

UV is absorbed more readily by many organic materials than either visible or near-IR light

UV light scatters more strongly off minute surface features than either visible or near-IR light

Near-IR light strongly reflects off of many dark-colored surfaces, making evidence apparent

The SpectraScanner makes it possible to rapidly scan a scene for trace evidence and marks. Once located, these pieces of evidence can be further documented using high-resolution photographic methods.

Examples of forensic evidence documented using reflected-UV imaging include:

Shoe impressions, scuffs and scrapes, tool marks and drag marks which are faint or non-evident to the eye

Repainted or touched up surfaces

Bite marks on human skin

Trace materials and substances on various surfaces

Altered documents

Examples of forensic evidence documented using Near-IR imaging include:

Bloodstains on dark clothing, carpets and furniture

Muzzle blast circles on dark clothing

Altered documents – reading crossed-out typescript