NIRIKHON

SECURITY & DEFENCE TECHNOLOGY

PRODUCT BROCHURE

FORENSIC

Forensic Light Source Kit (Investigation Flashlight)

The Forensic Light Source Kit (Investigation Flashlight) by NIRIKHON delivers 8+ selectable wavelengths — including UV 365nm, UV 395nm, and IR — at ≥800 lumens for latent biological fluid and fingerprint detection. Built with T6061 aircraft-grade aluminum, it's rated IPX7/IPX8 waterproof and 1.5m drop-resistant. Includes protective goggles and filters, with a 2.5–6h rechargeable battery. Backed by a 12-month warranty.



Forensic Light Source Kit (Investigation Flashlight)

Official Brochure

SOLUTION SNAPSHOT

8+ Multi-Wavelength Optical System	**High-Intensity ≥800 Lumens Output with ≥80% Beam Uniformity**	**Aircraft-Grade T6061 Aluminum Alloy Construction**
Submersible IPX7/IPX8 Waterproof & 1.5-Meter Drop Resistance	**Rechargeable Battery with 2.5–6 Hours Runtime**	**Complete Forensic Filter & Multi-Wavelength Protective Goggles Kit**

OVERVIEW

Built for Real Operations 01

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CAPABILITIES

Key Features & Product Modules 02

Aircraft-Grade T6061 Aluminum Alloy Housing

Machined from aircraft-grade T6061 aluminum alloy, this housing forms the structural backbone of the unit, protecting the internal optical and power systems from impact and environmental stress. This construction is what allows the unit to withstand sustained deployment across demanding crime scene and field investigation environments.

Multi-Wavelength LED Emitter Array

This emitter array delivers 8+ selectable wavelengths — UV 365nm, UV 395nm, Blue, Cyan, Green, Orange, Red, IR, and White — each tuned to excite the fluorescence response of specific evidence types. This array is the unit's core detection engine, transforming invisible biological and trace evidence into visible fluorescence under the correct wavelength.

High-Transmission Optical Lens Assembly

The optical lens assembly delivers ≥800 lumens output at ≥80% beam uniformity, ensuring consistent light intensity is transmitted evenly across the full beam field. This lens system is what prevents dark spots or inconsistent fluorescence excitation during close evidence examination.

Adjustable Spot-to-Flood Focus Mechanism

This mechanism allows the beam to shift between a concentrated spot for detailed point inspection and a wide flood pattern for broader area scanning. This adjustable focus gives examiners direct control over illumination coverage based on the scale of the evidence being examined.

Onboard LED Power Regulation System

This system manages consistent power delivery to the multi-wavelength LED array, maintaining stable output across all 8+ selectable wavelength modes. Reliable power regulation is essential to preserving beam uniformity and intensity throughout an extended examination session.

Rechargeable High-Capacity Lithium-Ion Battery Unit (18650 or Equivalent)

This rechargeable lithium-ion battery, built on an 18650 or equivalent cell format, delivers 2.5 to 6 hours of continuous operation depending on mode. This power reserve is what keeps the unit field-ready across extended crime scene examination sessions without requiring mid-session recharging.

Tactical Anti-Slip Grip Sleeve

The anti-slip grip sleeve provides secure handling during active field operation, supporting confident one-handed control even in demanding physical conditions. This ergonomic grip is essential for maintaining precise beam control during detailed evidence examination.

Ergonomic Tactical Tail-Cap Power Switch

The tail-cap switch enables fast, reliable activation and mode switching through simple thumb operation. This tactical switch design supports rapid, one-handed control during active field investigation without disrupting the examiner's grip or focus.

Multi-Segment Battery Level Indicator

The battery level indicator gives examiners real-time visibility into remaining charge, displayed directly on the unit. This indicator supports reliable session planning, helping examiners avoid unexpected power loss during extended field deployment.

Dual USB / AC Power Charging Interface

Supporting both USB and AC adapter charging, this interface gives examiners flexible power replenishment options whether deployed in the field or based at a fixed forensic laboratory station. This dual-charging capability ensures the unit stays field-ready across varied operational settings.

IPX7/IPX8 Submersible Waterproof Sealing System

Rated IPX7/IPX8, the sealing system protects internal optical and power components from water ingress, allowing the unit to remain fully operational in wet, outdoor, or submersion-exposed field conditions. This waterproof rating ensures reliable performance regardless of environmental exposure at the scene.

Corrosion-Resistant & Anti-Abrasive Outer Finish

The outer finish is engineered to resist corrosion and abrasive wear, preserving the housing's structural integrity across repeated field deployment. This durable finish protects the unit's long-term reliability under continuous operational use.

Passive Thermal Management Design

The housing's construction supports passive heat dissipation away from the internal LED array during extended high-intensity operation. This thermal design helps maintain consistent light output and protects internal components during prolonged examination sessions.

Interchangeable Optical Forensics Filter Set

This dedicated filter set allows examiners to isolate specific fluorescence wavelengths for targeted evidence visualization. Interchangeable filters extend the unit's detection versatility across the full range of biological fluids, fingerprints, and trace materials it's designed to reveal.

Multi-Wavelength Forensic Protective Goggles

Compatible across all 8+ selectable wavelengths, these protective goggles shield the examiner's eyes while enabling clear visualization of fluorescence signals. This eyewear is essential safety equipment for direct, prolonged exposure to the unit's multi-spectrum illumination during examination.

Rugged Shockproof Field Transport Case

The rugged, shockproof case protects the complete kit — unit, goggles, filters, and battery — during transport and storage between field deployments. This case ensures the full system remains organized, protected, and instantly deployable at the next investigation site.

Lanyard & Holster for Secure Field Carry

The included lanyard and holster provide secure, hands-free carry options during active field movement, reducing the risk of drops or misplacement during dynamic crime scene operations.

SPECIFICATION

Technical Details

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8+ MULTI-WAVELENGTH OPTICAL SYSTEM
✓ Included

HIGH-INTENSITY ≥800 LUMENS OUTPUT WITH ≥80% BEAM UNIFORMITY
✓ Included

AIRCRAFT-GRADE T6061 ALUMINUM ALLOY CONSTRUCTION
✓ Included

SUBMERSIBLE IPX7/IPX8 WATERPROOF & 1.5-METER DROP RESISTANCE
✓ Included

RECHARGEABLE BATTERY WITH 2.5-6 HOURS RUNTIME
✓ Included

COMPLETE FORENSIC FILTER & MULTI-WAVELENGTH PROTECTIVE GOGGLES KIT
✓ Included

SPOT-TO-FLOOD ADJUSTABLE BEAM FOCUS
✓ Included

BIOLOGICAL FLUID FLUORESCENCE EXCITATION
✓ Included

LATENT FINGERPRINT & TRACE FIBER DETECTION
✓ Included

DOCUMENT & CURRENCY SECURITY INSPECTION
✓ Included

TACTICAL TAIL CAP SWITCH WITH ANTI-SLIP GRIP
✓ Included

INTELLIGENT BATTERY LEVEL INDICATOR
✓ Included

USB/AC DUAL CHARGING SUPPORT
✓ Included

RUGGED SHOCKPROOF FIELD TRANSPORT CASE & INTERNATIONAL COMPLIANCE
✓ Included

QUESTIONS

Frequently Asked Questions

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Q. Does the unit maintain wavelength switching accuracy across UV 365nm, UV 395nm, and IR modes without beam distortion?

A. Yes. The unit supports 8+ selectable wavelengths — including UV 365nm, UV 395nm, and IR — through a dedicated multi-wavelength LED emitter array paired with a high-transmission optical lens system rated at ≥80% beam uniformity. This ensures consistent beam quality is maintained across every wavelength mode, without degradation in intensity or dispersion when switching between spectral settings.

Q. Can the unit reliably visualize biological fluid fluorescence on dark or porous surfaces during field examination?

A. Yes. The unit is designed to support fluorescence detection of biological fluids — including blood, semen, saliva, and urine — through targeted wavelength selection combined with ≥800 lumens output. Combined with the interchangeable optical filter set, this allows examiners to isolate and enhance fluorescence contrast even on challenging dark or porous surface types.

Q. How does the unit's waterproof rating and drop resistance perform under sustained field examination conditions?

A. The unit is rated IPX7/IPX8 for submersible waterproof protection and engineered to withstand 1.5-meter drop impacts. This combination ensures continued operational reliability across wet, outdoor, and physically demanding crime scene environments, without compromising the internal optical or power systems.

Q. What battery performance can be expected during multi-hour continuous field investigations?

A. The unit's rechargeable lithium-ion battery delivers 2.5 to 6 hours of continuous operation depending on the selected mode, with a built-in battery level indicator providing real-time charge visibility. Dual USB and AC charging support further ensures the unit can be recharged flexibly between deployments, minimizing downtime during extended investigation schedules.

Ready to deploy Forensic Light Source Kit (Investigation Flashlight)?

Talk to Nirikhon for product consultation, installation planning, integration support, and enterprise deployment.

Hotline: 09647 120 120 | Website: www.nirikhon.com