NIRIKHON

SECURITY & DEFENCE TECHNOLOGY

PRODUCT BROCHURE

UNDER VEHICLE SURVEILLANCE SYSTEM

Handheld UVSS Under Vehicle Inspection System

The Handheld UVSS Under Vehicle by NIRIKHON (Model ZA-HUV-S) Inspection System delivers rapid, portable undercarriage scanning for checkpoint security operations. Its telescopic pole with Full HD 1080p camera and ≥120° wide-angle lens captures clear real-time imaging, viewed instantly on a 4.3-inch IPS display. Built for continuous field deployment, it runs 4-6 hours on a rechargeable battery — engineered for audit-ready, mission-critical inspection.



Handheld UVSS Under Vehicle Inspection System

Official Brochure

SOLUTION SNAPSHOT

Full HD 1080p CMOS Camera with ≥120° Wide-Angle Lens	**1-2m Extendable Telescopic Inspection Mechanism**	**Integrated 4.3-Inch IPS/LCD High-Definition Display**
High-Intensity Adjustable LED Illumination	**Rechargeable Lithium-Ion Battery — 4 to 6 Hours Operation**	**1-Year Device Warranty**

OVERVIEW

Built for Real Operations 01

The Handheld UVSS Under Vehicle by NIRIKHON (Model ZA-HUV-S) Inspection System delivers rapid, portable undercarriage scanning for checkpoint security operations. Its telescopic pole with Full HD 1080p camera and ≥120° wide-angle lens captures clear real-time imaging, viewed instantly on a 4.3-inch IPS display. Built for continuous field deployment, it runs 4-6 hours on a rechargeable battery — engineered for audit-ready, mission-critical inspection.

CAPABILITIES

Key Features & Product Modules 02

Full HD 1080p Wide-Angle CMOS Camera Unit

A high-definition CMOS sensor paired with a ≥120° wide-angle lens captures the full undercarriage in sharp detail, giving inspectors a broad, clear view in a single scan rather than multiple repositioning passes.

1–2m Extendable Lightweight Telescopic Inspection Pole

The telescopic rod extends up to 2 meters, letting the camera unit reach beneath vehicles of any height while the inspector remains upright — enabling faster, safer checkpoint throughput.

4.3-Inch IPS/LCD High-Definition Monitoring Display

Mounted directly on the handle, the 4.3-inch IPS display streams live undercarriage footage with no noticeable delay, so threats or anomalies are identified the moment the pole passes beneath the vehicle.

High-Intensity Adjustable LED & IR Night Vision Illumination Module

Adjustable-brightness LEDs combined with low-light/IR-assisted imaging illuminate dark, shadowed, or enclosed undercarriage spaces, ensuring inspection accuracy is unaffected by time of day or ambient lighting.

Rechargeable High-Capacity Lithium-Ion Power Unit

The onboard lithium-ion battery delivers 4 to 6 hours of continuous operation, keeping the unit field-ready across extended checkpoint shifts without requiring a mid-duty recharge.

MicroSD Storage & Onboard Recording System

Inspection footage and photos are recorded directly to onboard MicroSD storage (32GB and above) in JPG and MP4 formats, creating a documented, retrievable inspection record for every vehicle screened.

USB/Type-C & Optional Wireless Connectivity

A USB/Type-C interface allows fast, direct transfer of recorded footage for archiving or review, while optional wireless transmission supports integration with a central monitoring system for coordinated oversight.

Ergonomic Handheld Control Interface & Protective Frame

Built into a lightweight, portable housing, the handheld grip and user-friendly interface allow inspectors to operate the system with minimal training, ensuring rapid, repeatable deployment across mobile checkpoint and patrol operations.

OPERATIONAL VALUE

Software, Benefits & Outcomes 04

Real-Time Live Video Inspection & Monitoring Interface

Streams real-time 1080p under-vehicle video directly to the onboard display with no noticeable delay, allowing inspectors to assess undercarriage conditions the instant the pole passes beneath the vehicle.

- View live 1080p undercarriage footage during active inspection
- Adjust pole angle in real time based on live feed
- Identify suspicious objects or anomalies instantly on-screen
- Maintain uninterrupted visual coverage across the full scan pass

Instant Photo & MP4 Video Capture Triggering

Enables inspectors to capture still images or record MP4 video on demand, creating an immediate visual record the moment a potential concern is spotted.

- Trigger instant photo capture during live inspection
- Start and stop MP4 video recording on command
- Capture multiple images per vehicle inspection cycle
- Preserve high-clarity evidence for immediate reference

LED Brightness & Camera Exposure Control Console

Gives operators direct control over illumination intensity, ensuring consistent 1080p image clarity whether the undercarriage environment is fully dark or partially lit.

- Adjust LED brightness levels to match undercarriage conditions
- Optimize illumination for enclosed or shadowed vehicle spaces
- Maintain consistent image clarity across varying checkpoint environments
- Reduce glare or overexposure in reflective undercarriage areas

MicroSD Media File Manager & Playback System

Organizes and manages recorded photos and videos stored on the onboard MicroSD card, allowing quick playback and review without needing external software.

- Browse recorded photos and videos directly on the display
- Play back MP4 footage for immediate review
- Delete or retain files based on inspection outcome
- Manage storage usage across the 32GB+ MicroSD capacity

USB / Type-C Direct Data Transfer & Export Utility

Transfers recorded inspection footage directly to external systems via USB or Type-C connection, supporting fast evidence archiving and reporting workflows.

- Export photo and video files to external storage or systems
- Transfer high volumes of inspection data without file loss
- Support rapid archiving after high-traffic checkpoint shifts
- Enable direct file access for post-inspection documentation

Wireless Live Video Transmission to Central Monitoring

Where enabled, transmits live inspection video wirelessly to a central monitoring point, extending checkpoint visibility to a coordinated Command & Control Operations setting.

- Relay live undercarriage footage to a central monitoring station
- Support coordinated oversight across multiple checkpoint units
- Maintain real-time visibility without requiring physical file transfer
- Enable remote situational awareness during active inspections

Inspection Record Tagging & Review

Recorded photo and video files serve as a per-vehicle inspection record, allowing personnel to review captured footage against checkpoint reporting requirements.

- Review captured photos and videos per inspection cycle
- Reference recorded footage during shift handover or reporting
- Retain inspection files for institutional documentation needs
- Support post-inspection verification using stored evidence

System Status & Battery Power Level Diagnostics

Displays real-time battery and system status on the onboard screen, allowing operators to manage continuous field operation without unexpected shutdowns.

- Monitor remaining battery level during active duty
- Plan charging cycles around the 4–6 hour operational window
- Confirm system readiness before checkpoint deployment
- Avoid inspection interruption through proactive power monitoring

SPECIFICATION

Technical Details 05

FULL HD 1080P CMOS CAMERA WITH ≥120° WIDE-ANGLE LENS
✓ Included

1-2M EXTENDABLE TELESCOPIC INSPECTION MECHANISM
✓ Included

INTEGRATED 4.3-INCH IPS/LCD HIGH-DEFINITION DISPLAY
✓ Included

HIGH-INTENSITY ADJUSTABLE LED ILLUMINATION
✓ Included

RECHARGEABLE LITHIUM-ION BATTERY — 4 TO 6 HOURS OPERATION
✓ Included

1-YEAR DEVICE WARRANTY
✓ Included

LIGHTWEIGHT, PORTABLE DESIGN FOR MOBILE PATROL DEPLOYMENT
✓ Included

LOW-LIGHT & IR-ASSISTED IMAGING SUPPORT
✓ Included

DUAL PHOTO & VIDEO RECORDING SUPPORT
✓ Included

EXPANDABLE 32GB+ MICROSD STORAGE CAPACITY
✓ Included

MICROSD RECORDING WITH USB/TYPE-C TRANSFER
✓ Included

USER-FRIENDLY CONTROL INTERFACE
✓ Included

OPTIONAL WI-FI / WIRELESS CENTRAL MONITORING INTEGRATION
✓ Included

USB / TYPE-C HIGH-SPEED DATA TRANSFER
✓ Included

QUESTIONS

Frequently Asked Questions 07

Q. How long can the system operate continuously during extended checkpoint duty, and what happens as battery levels decline?

A. The unit is powered by a rechargeable lithium-ion battery rated for 4 to 6 hours of continuous operation. Battery status is visible on the onboard display, allowing operators to plan recharging around shift schedules and ensuring the system remains field-ready throughout extended checkpoint deployment.

Q. Can the 1080p camera maintain image clarity when inspecting completely dark or enclosed vehicle undercarriages?

A. Yes. The Full HD 1080p CMOS camera is paired with high-intensity, brightness-adjustable LED illumination and low-light/IR-assisted imaging support. This combination is designed to maintain clear visibility in fully dark, shadowed, or enclosed undercarriage environments, ensuring consistent inspection accuracy regardless of ambient lighting.

Q. How durable is the telescopic pole mechanism under repeated, rapid extension and retraction during high-frequency checkpoint operations?

A. The telescopic pole is built with a lightweight, field-ready construction specifically designed for rapid deployment across mobile checkpoints and patrol operations. Its extendable 1–2 meter range supports quick setup and repeated use without compromising structural stability during continuous operational cycles.

Q. What is the system's capacity for storing photo and video inspection evidence, and how is that data retrieved?

A. The system supports MicroSD storage of 32GB or higher, recording inspection evidence in JPG photo and MP4 video formats. Stored files can be reviewed directly on the onboard display or transferred via USB/Type-C for external archiving, ensuring sufficient capacity and accessible evidence retrieval for audit and reporting purposes.

Ready to deploy Handheld UVSS Under Vehicle Inspection System?

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

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