

# DayCor® RANGER



DAYCOR®  
INSIDE

## DRIVEN CORONA INSPECTION SYSTEM



DayCor® Ranger is a corona and arcing monitoring solution for driven inspections. Ranger benefits from the unique capabilities of DayCor® and of a platform designed for driving conditions. Ranger guarantees the highest ultraviolet (UV) detection sensitivity coupled with noise reduction algorithm; smooth and sharp video clips of the inspected area with merged UV and Visible signals; the most reliable scanning results; pinpointed display of corona emitting sources' location. Ranger system is mounted on the vehicle roof and operated remotely from within the vehicle via a Display & Control unit. Corona counted events per second, audio commentation & GPS are integrated. DayCor® Ranger accomodates optional IR cameras providing thereby a multi-sensors concurrent inspections.

- >> Corona detection outstanding sensitivity
- >> Rapid zoom of the visible channel
- >> Auto focus of UV and Visible channels
- >> Remote Control

- >> High resolution 8.4" LCD
- >> Videos with audio & GPS recording and storage
- >> Accomodates multi sensors concurrent inspection
- >> UV events counter

## SUPREME SENSITIVITY TO UV SIGNALS

With detection of at least 1pC from a distance of 10 meters and 7.7dBµV (RIV) @ 1MHz Ranger makes the faintest corona perceivable and displayed clearly. UV events counter supported by a dedicated algorithm designate detected corona severity.

## COMFORT OF OPERATION

Ranger is operated from within the vehicle by means of a joystick and a keyboard with immediate direct operation and on-screen indications of selected controls. Switching between control functions is instantaneous and seamless.

## RUGGED AND STABILIZED

Shock absorbers protect the imaging unit and support safety off roads driving. Composite design ensures low system weight and extended mission endurance.

## DAYCOR® TECHNOLOGY INSIDE

Implementing DayCor® technology Ranger is a bi-spectral solar blind UV-Visible camera allowing operation in full daylight [Registered Patent EP1112459B1].

## VIDEO RECORDING & STORING

Recorded high resolution video clips are NTSC/PAL compatible. GPS, date and time; audio commentations & UV counting are embedded.

## EASY INSTALLATION

Ranger's installation is easy and fast. It is adjustable to most vehicle makes and sizes. Supplied with an installation kit and detailed instructions.

## MULTI SENSORS CONCURRENT INSPECTION

Ranger is set to incorporate additional camera. A suggested IR camera or a customers' choice is mounted on the roof and controlled remotely from within the vehicle. Concurrent inspections with a combination of UV, IR, Visible etc, streamlines work and provides a comprehensive view of the inspected asset.

## HIGH SPEED INSPECTION

DayCor® Ranger performs impeccably at speeds up to 100 km/hour inspecting energized systems of high and medium voltages.

# TECHNICAL SPECIFICATIONS

## UV-VISIBLE BI-SPECTRAL CAMERA PROPERTIES

Minimum Discharge Detection	1pC @ 10 meters (RWE certified: IEC 60270:2000)
Minimum RIV Detection	7.7dB $\mu$ V (RIV) @1MHz (RWE certified: NEMA107-1987)
Minimum UV Sensitivity	2.2x10 <sup>-18</sup> watt/cm <sup>2</sup>
Field of View H x V	5° x 3.75°
Focus Range	3m   9.8ft - infinity
UV/Visible Overlay Accuracy	Deviation < 1 miliradian
Rapid Visible Zoom	25 optical x 12 digital attained within 1 sec
UV Zoom	X2 and X4
Dimensions	L25 x W18 x H14.5 cm   L9.8 x W7.0 x H5.7

## PAN & TILT SYSTEM

Stabilization	Shock absorbers
Interface Connector	According to MIL-C-26482 standard
Power Consumption	<15 Watts (nominal)
Power Input	9-14 V DC or 110/220 V AC
Preset Position	Multiple programmable position
Operating Angles	Pan: 340°   Tilt: -90° to +30°
Speed [°/Sec]	Pan: 10° / Sec or 30° / Sec   Tilt: 10° / Sec
Standard	IP67
Communication Port	RS232

## PORTABLE CONTROL & DISPLAY UNIT

Display	8.4" high resolution color LCD
Resolution	800 x 600 SVGA
Operation	Joystick, keyboard
Controlled Units	UV camera, Pan & Tilt, Recorder
Audio Interface	Internal microphone & speaker
Dimensions	L7.6 x W31.7 x H22.6 cm   L3" x W12.5" x H8.9"

## MEDIA DATA STORAGE

Video & Image Recording	Built-in internal
Digital Storage	Removable SD card
Video Format	AVI, H.264 (MJPEG, MPEG-2, MPEG-4)
Image Format	JPEG
Full Playback	Video & audio, image
GPS	Embedded data

## OPERATION

Operation Temp	-20°C up to +55°C
Power Source	Car Battery

## ACCESSORIES

Corona-Base reporting software; Wide FOV lenses;  
IR camera (per customer's preferences)

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