

# Auto 200 Dosimetry Reader

InLight® Complete Dosimetry System Solution

## Features and benefits

- Appropriate for medium-sized laboratories (10,000 –100,000 participants; some automation)
- Table-top model
- High throughput (readout in 12–13 seconds); 280 badges per hour
- Requires an external PC
- Non-destructive readout allows for reuse and reanalysis
- Simple calibration process
- Reliable, uncomplicated, low-maintenance equipment
- No heating parameters to maintain — thermal quenching eliminated; false light output due to artifacts eliminated
- No gas required
- High environmental stability
- Effective replacement for older radiation measuring technologies (e.g., Thermoluminescent dosimeter)

The Auto 200 reader is ideal for personnel, area/environmental and emergency response monitoring. It reads radiation dose captured in aluminum oxide ( $\text{Al}_2\text{O}_3:\text{C}$ ) detectors and measures the dose by using optically stimulated luminescence (OSL) technology pioneered by LANDAUER.

## Overview

The Auto 200 reader works as the most important component of the InLight Complete Dosimetry System Solution for onsite dosimetry using LANDAUER's OSL technology. The system is scalable and can be configured to complement your current dosimetry program or to maintain your own in-house accredited dosimetry program.



InLight Auto 200 Dosimetry Reader and Laptop

Auto 200 readers use only InLight dosimeters for whole body, environmental and emergency response monitoring. InLight dosimeters measure radiation exposure with aluminum oxide detectors ( $\text{Al}_2\text{O}_3:\text{C}$ ) and OSL technology. The readout process uses a light-emitting diode (LED) array to stimulate the detectors and the light emitted by the OSL material is detected and measured by a photomultiplier tube using a high-sensitivity photon counting system. The amount of light released during optical stimulation is directly proportional to the radiation dose and the intensity of stimulation light. The nondestructive OSL readout process of  $\text{Al}_2\text{O}_3:\text{C}$  detector enables reanalysis for dose verification and intermittent analysis while maintaining total dose accumulation. Dose algorithms meet National Voluntary Laboratory Accreditation Program and Department of Energy Laboratory Accreditation Program accreditation requirements.

The Auto 200 reader includes an external laptop with menu-driven InLight reader software. The software automatically captures bar-coded dosimeter serial numbers, which facilitates chain of custody. The Auto 200 reader and the software provide control over reader setup, analysis, database maintenance, QC procedures and data recording, enabling dosimeter readout, recording and the monitoring of reader performance. It provides rapid, accurate radiation assessment that can help improve the efficiency and productivity of your program.

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# Auto 200 Dosimetry Reader

## Technical Specifications

<b>Operation</b>	Al <sub>2</sub> O <sub>3</sub> :C with OSL; high-sensitivity photon counting system and dose calculation algorithm
<b>Speed</b>	Readout in 12–13 sec
<b>Capacity</b>	4 magazines, 50 dosimeters each, 200 dosimeters per load
<b>Energy dependence</b>	Within ±10% over diagnostic energy range; within ±1% for photons and electrons from 5 MeV–20 MeV (please confirm)
<b>LED array</b>	36
<b>Size</b>	24.5"H x 17.5"W x 15"D (40" x 27" x 26" with crate)
<b>Power requirements</b>	120–240V
<b>Weight</b>	100 lb. (150 lb. with crate)
<b>Bar code input</b>	Internal optical reader

Learn More

Call 800-323-8830 or email [custserv@landauer.com](mailto:custserv@landauer.com)

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