

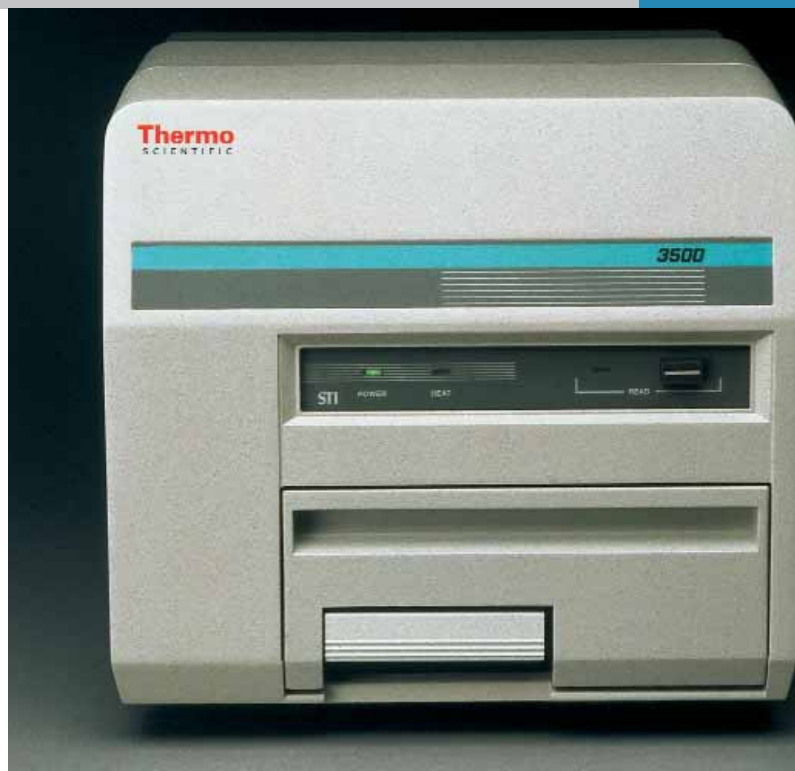
The Harshaw 3500 TLD Reader provides cost-effective measurements of the radiation dose absorbed by individual TLD elements: ribbons (chips), rods, micro-cubes or powders.

Harshaw 3500

TLD Reader



Thermoelectric PMT cooler for maximum gain stability
 Measurement quality assurance
 Automatic background subtraction capability
 Easy to operate, service and maintain
 Compact and attractive
 Optional neutral density filters
 600 °C (1112 °F) Tmax option



The Harshaw 3500 includes a sample drawer for a single element TLD dosimeter, a linear, programmable heating system and a cooled photomultiplier tube with associated electronics to measure the TL light output. The manually-operated Harshaw 3500 is used in medical physics, health physics, materials research, food irradiation and industrial applications.

Key Features

- Planchet heating incorporates welded thermocouple for best temperature reproducibility
- Heating profile includes pre-heat, acquire and anneal cycles
- Heating temperature capability up to 600 °C (1112 °F)
- 7 decade glowcurve acquisition range
- Optional neutral density filter to extend the high measurement range

This versatile start-up or add-on system is ideal for small or medium capacity applications in radiation protection, medical, research and high range dosimetry.

Harshaw 4500

Dual TLD Reader and Workstation

All PC functions are external to the reader

Minimum initial reader investment

External PC can be used for other applications

Capacity to improve system performance as PC upgrades become available



The Harshaw 4500 Manual TLD Reader provides versatile readout of TLD dosimeters. It incorporates both hot gas and planchet heating to read TLD cards, chipstrates, ringlets and unmounted dosimeters. Dual photomultiplier tubes and associated electronics enable it to read cards in two positions simultaneously. A start button and four indicator lights control and monitor the operation. The Model 4500 connects via a serial interface to an external PC, as illustrated, which provides control over the setup, time-temperature profiles (TTPs), analysis and data recording. Additional applications packages are available.

Performance Highlights

- Reads 2-, 3-, or 4-element cards and extremity carrier cards using hot gas heating
- Reads single TLD chips, rods or powders using contact planchet heating
- Card elements are read in pairs. The pairs of a 4-element card are sequenced automatically
- Interfaces with WinREMS and software options such as Dose Algorithms, Glow Curve Analyzer, Chain-of-Custody and Health Physics Records System
- Easy to integrate into existing TLD systems with minimum additional training
- System hardware and software expansions can be transparent to the user, and maximize the utility of purchased items



The Harshaw 5500 TLD Reader provides cost-effective measurements of the radiation dose absorbed by individual TLD elements. The instrument includes an automatic sample changer and carrier disk for automatic processing of up to 50 TLD dosimeter elements in a single loading.

Harshaw 5500

Automatic Dosimetry Reader

Automatic background subtraction capability

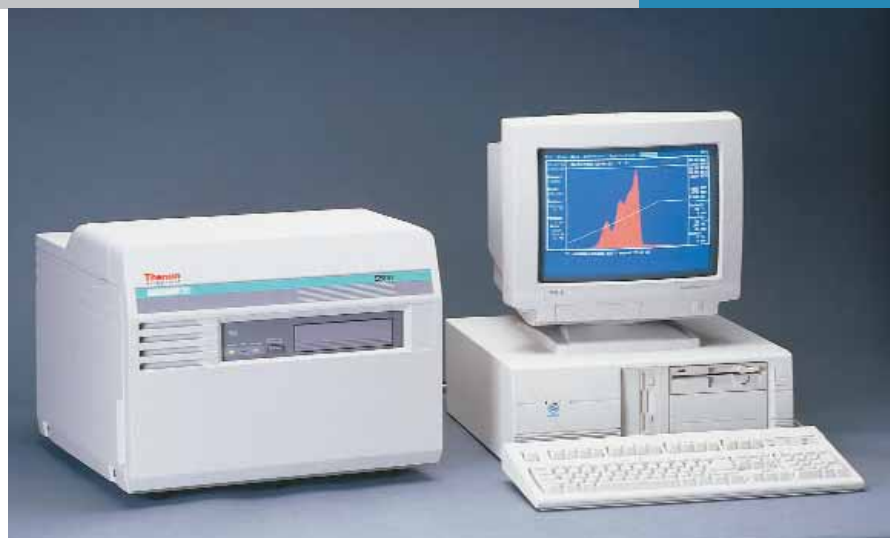
Easy to operate, service and maintain

Compact and attractive

Linear contactless hot gas heating

Optional glow curve deconvolution software

Optional neutral density filters



The Harshaw 5500 has a linear, programmable heating system and a cooled photomultiplier tube with associated electronics to measure the TL light output. The WinREMS Software, which runs on a separate computer, provides the user interface, the reader control and the applications software.

Harshaw 5500 Key Features

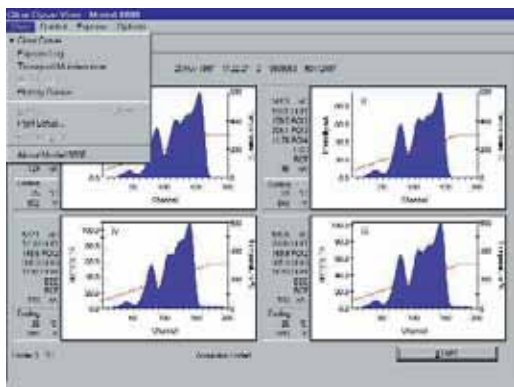
- Thermoelectric PMT cooler for maximum gain stability
- Measurement quality assurance
- Unattended automatic background subtraction capability
- Easy to operate, service and maintain
- Compact and attractive
- Optional calibration software
- Unattended automatic operation for up to 50 dosimeters
- Multiple, programmable, linear time-temperature profiles
- Heating profile includes pre-heat, acquire and anneal cycles
- Heating by hot gas, temperature capability up to 600 °C (1112 °F)
- 7 decade dynamic acquisition ranges

The high-capacity TLD Reader, Model 8800, offers immediate benefits and future upgrades to all TLD Radiation Protection Dosimetry Services.

Harshaw 8800

Dosimetry Reader

- Field-proven reliability
- Automatically reads a carousel containing up to 1400 four-element cards at 140 cards per hour
- A unique chain-of-custody tracks and maintains records



The Model 8800 is controlled through screen dialogues, using the mouse to make selections from the drop-down menus. It can also be networked with Model 4500 and Model 6600 in discrete or shared dosimetry applications.

A new operational environment supports NT Windows™, explicit on-screen text and menu-driven control. The card readout has been accelerated up to 140 cards per hour. EXT-RAD and DXT-RAD extremity dosimeters are also processed automatically on carrier cards.

Element Calibration Coefficients (ECCs), Reader Calibration Factors (RCFs) and card acceptance procedures are controlled by a new automatic QA program.

The precisely controlled heating profiles offer consistent, repeatable glow curves, suitable for further analysis.



Backward compatibility with TLD-REMS and NETREMS software protects your existing records and enhances user skills.