Harshaw 6600 PLUS Specifications

Range	Seven decades
Warm-up time	20 minutes
Photronics Linearity	Less than 1% deviation.
Stability	Better than 1.0 µGy, based on one standard deviation of ten consecutive measurements
Repeatibility	Less than 2% variation (based on 1 standard deviation of 10 sequential measurements at 1 mGy (100mrad) ^{137}Cs)
Readout time (based on standard LiF: Mg, Ti)	TLD cards: 70 per hour EXT-RAD Chipstrates: 140 per hour DXT-RAD Ringlets: 280 per hour
Card Identification	Codabar, Interlaced 2 of 5, Code 39 Code 128 alphanumeric
Electrical	110 or 120 VAC ±10%, 60 Hz. 220 or 240 VAC ±10%, 50Hz.
Operating Temp range	15˚ C to 40˚ C
Storage Temp range	-10˚ C to 60˚ C
Shock resistance	Will withstand a 10mm drop onto a concrete surface
Humidity tolerance	-10˚ C to 60˚ C, and RH up to 90% (not condensing)
Light exposure	Tested to withstand a minimum of 1,000 W/m^2
Weight	70kg (154 pound)
Height x Width x Depth	24 cm (9.45 inch), 22 cm (8.67 inch), 23 cm (9.05 inch)

Accessories and Options

- Built-in Internal ^{90}Sr/Y Irradiator (0.5 mCi/18.5 MBq)
- Built-in triple barcode scanner for use with EXT-RAD extremity dosimeters
- Built-in camera barcode scanner for use with DXT-RAD extremity dosimeters.
- Model 6600 Plus Basic Spare Parts Kit
- Model 6600 Neutral Density Lens Filter Drawer (10:1, 100:1, 1000:1)
- Load/Unload Card Cartridge for Model 6600 Plus
- Nitrogen Gas Flow Meter/Regulator,
- Nitrogen Generator with Integrated Compressor
- WinREMS-SQL Version

---

thermoscientific

Harshaw 6600 PLUS Ordering Information

| Part Number	Description
6600PLUS	MODEL 6600 PLUS TLD CARD READER INSTRUMENT
6600PLUSEXTRAD	MODEL 6600 PLUS TLD CARD READER INSTRUMENT with EXTRAD Option
6600PLUSDXTRAD	MODEL 6600 PLUS TLD READER INSTRUMENT with DXTRAD Option

Thermo Scientific™ RADSafe™ Certified Services
Configurable services tailored to your specific needs

Select from a wide variety of service products to maximize the productivity of your assets while managing the high cost of unplanned maintenance and repair.

- Performance plans for customers who need standard service responses
- Essential plans for when rapid service response and uptime are business priorities

Configure your extended warranty, preventative maintenance, calibration and commissioning and start up services plan and enjoy peace of mind.
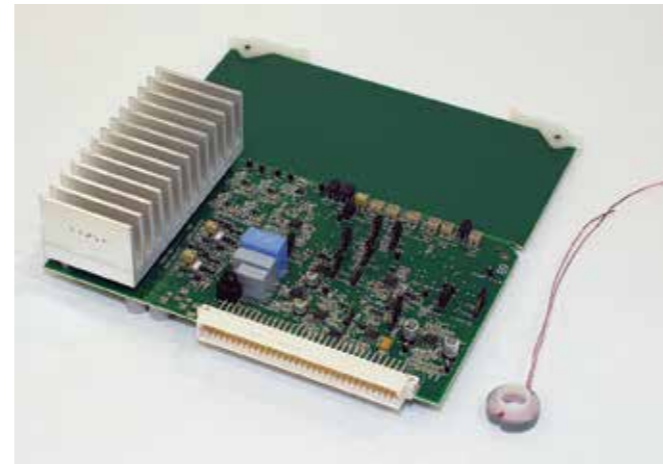
To learn more visit **www.thermofisher.com/radsafe**
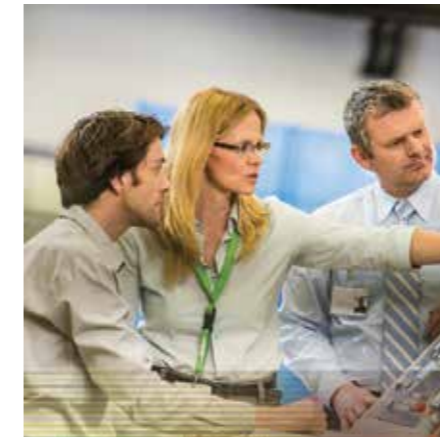
Spare Parts

Looking for spare parts for this instrument?

Visit our spare parts website at **www.analyticalinstrumentparts.com**

Find out more at **thermofisher.com/dosimetry**

Thermo Fisher
S C I E N T I F I C

© 2016 Thermo Fisher Scientific Inc. All rights reserved. All other trademarks are the property of Thermo Fisher Scientific Inc. and its subsidiaries.

---

thermoscientific

When dosimetry is your business
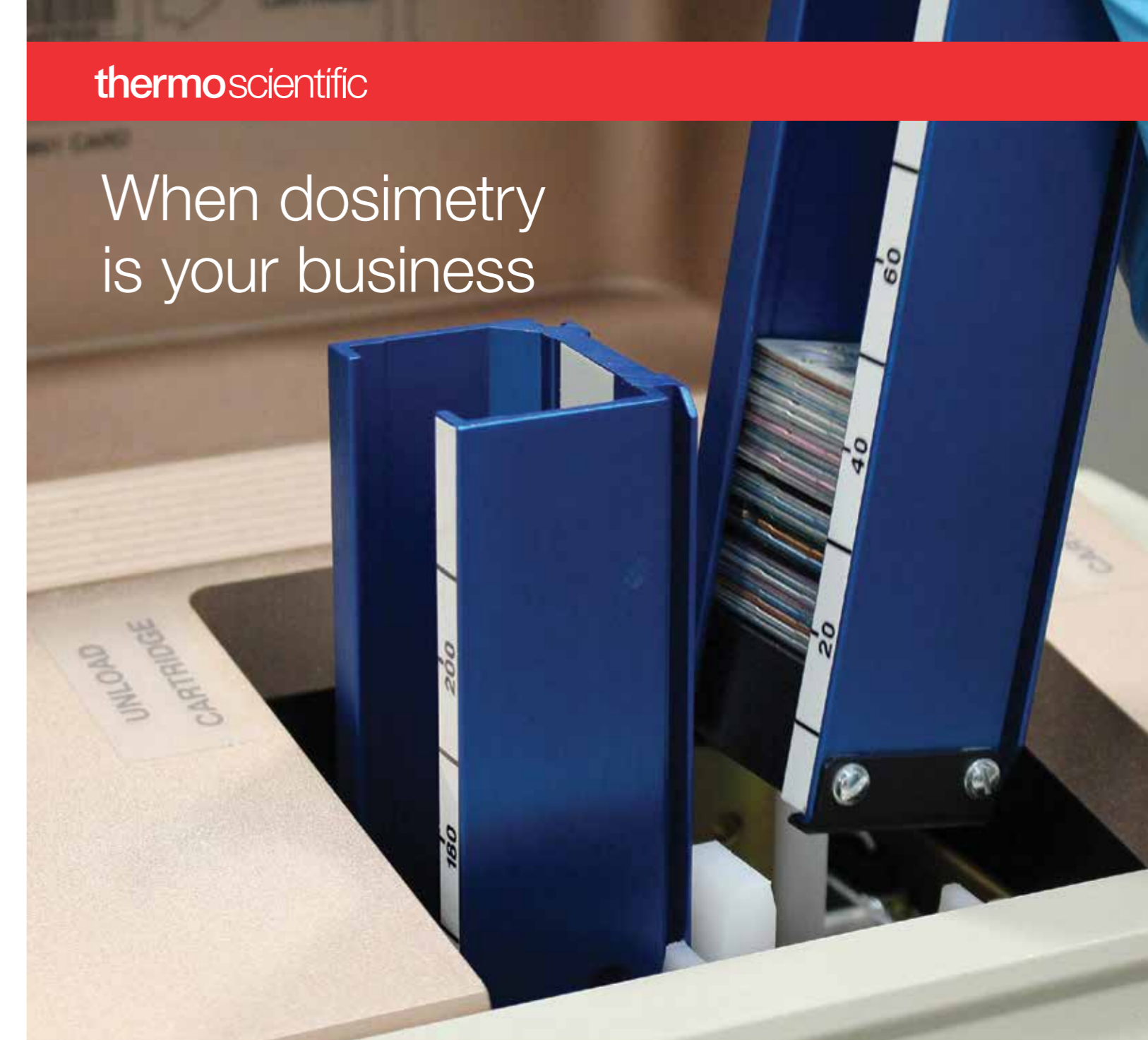
Thermo Scientific Harshaw 6600 PLUS TLD Reader

Thermo Fisher
S C I E N T I F I C

Thermo Scientific
Harshaw 6600 PLUS TLD Reader

The Thermo Scientific™ Harshaw™ 6600 Plus TLD Reader delivers a **complete solution** for dosimetry services and independent dosimetry labs. The versatile Harshaw 6600 Plus can process whole body, environmental and extremity dosimeters for gamma, beta and neutron dose measurements, enabling the **flexibility** necessary to **increase productivity** and **decrease operating costs**.

Equipped with two heating/data acquisition channels and dual cooled photo multiplier tubes, the Harshaw 6600 Plus can simultaneously read two TL elements, improving processing speeds and improving productivity. In addition, the Harshaw 6600 Plus operates automatically to process up to 200 TLD cards per processing run. With an optional internal irradiator, the Harshaw 6600 Plus can perform automated calibrations, reducing set-up time and further improving process efficiency.

Simple, menu driven maintenance routines controlled from an integrated touch screen display save technicians time and increase reader uptime.

Applications

Multi-element card dosimeters or individually bar-coded extremity dosimeters are best suited for:

Personnel and Environmental Dosimetry

- Whole body dose monitoring
- Extremity dose monitoring
- Environmental dose monitoring
- Fast and Thermal Neutron dose monitoring

Delivering complete confidence in quality management system and data integrity. Utilizing a precision controlled non-contact nitrogen gas heating system, the Harshaw 6600 Plus maximizes card longevity and produces well defined glow curves for confirmation of read quality. Unlike competing technologies which calibrate dosimeters in batches, TLD dosimeters are calibrated individually improving confidence in measurement accuracy.

An integrated barcode reader scans cards during processing, time stamping each record, maintaining an unbroken chain of custody and ensuring complete dosimeter data tracking.

Peace of Mind

- Built in ISO 9001 certified factories for over 40 years
- Used worldwide in IEC, NVLAP, DOELAP, ANSI accredited facilities
- Cards guaranteed up to 500 reads
- Low maintenance requirements
- Long term factory support extends operational life and reduces total cost of ownership
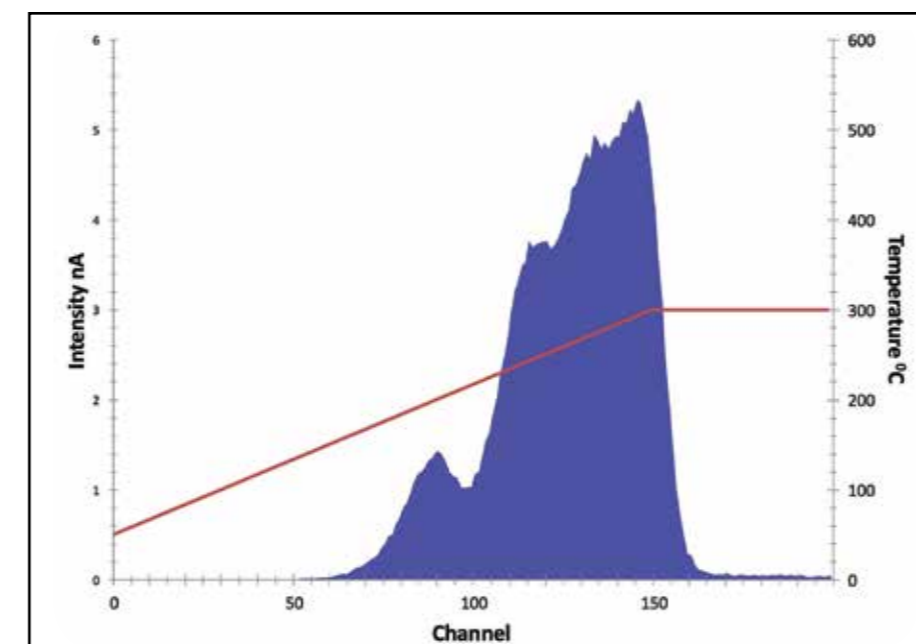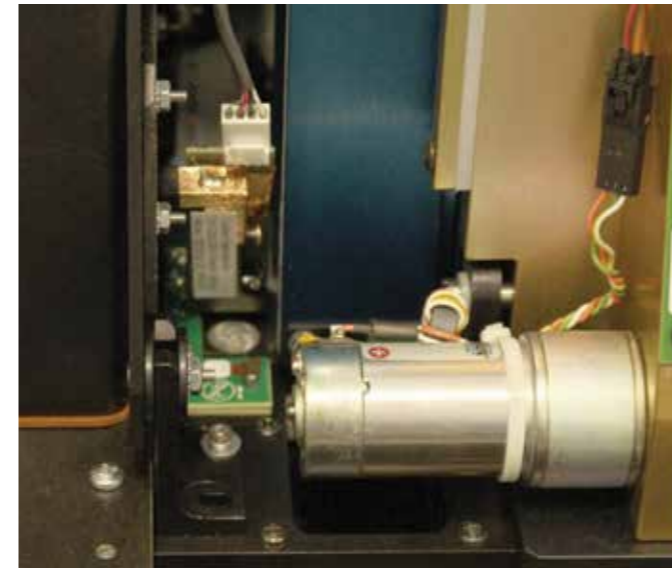
Improved Read Quality

The unique glow curve and temperature heating profile provided by Harshaw TLD readers provides verification of read quality. The glow curve is independent of potential inaccuracies induced by environmental conditions in reading, storage and handling to provide trustworthy recordkeeping. In case of errors in reading or a faulty/damaged dosimeter, glow curve analysis could help determine validity of the reading and drive appropriate corrective or preventative actions.

Multi-Element Card Dosimeters for whole body and environmental monitoring

- Harshaw TLD materials have a linear useful range from 1μGy to 20 Gy, with neutron monitoring capability. Lithium Fluoride based materials are **near tissue equivalent** and **not sensitive to light**.
- Teflon capsulated TL material is mounted in an aluminum card for extended durability
- Variety of tamper-resistant holders, designed with optimized filtration for energy discrimination are available with attachment to lapel and/or belt
- Uniquely bar coded for chain of custody, and available in different colors as an aid to recognition and categorization of issuance or wear periods.

Extremity Monitoring

- Sealed disposable finger rings, finger cots, wrist bands
- Sterilizable dosimeters for maintaining hygienic conditions
- Carrier cards for reading multiple extremity dosimeters
- Optional built-in extremity barcode readers (EXT or DXT) to automatically associate the TL response from the individually-barcoded extremity dosimeters for ease of operation and unbroken chain of custody

Optional ^{90}Sr/Y Internal Irradiator – Total control of system calibration

- Optional ^{90}Sr/Y Internal Irradiator allows automated system calibration, reducing time and labor costs
- No need for an expensive and large ^{137}Cs irradiator
- Provides you complete control over your dosimetry system allowing you to save time and money by not relying on a manufacturer for calibration dosimeters.