

Atomlab 200[®] Dose Calibrator

The Atomlab 200 provides fast, accurate radionuclide activity measurements with performance that easily surpasses the most stringent regulatory requirements. The unit is simple to operate. There are 13 isotope selection keys, ten are factory programmed for the most commonly used radionuclides and three are user defined. Any key can be reprogrammed by the user for a desired isotope.

Activity is displayed on a LED readout in either Curie or Becquerel units. Background correction and zero adjustment are performed at the touch of a button. Range selection is automatic.

Activity measurements are performed by a microprocessor controlled electrometer located within the detector assembly of the ionization chamber. The chamber is shielded with .25" (.64 cm) lead. It can be located up to ten feet away from the display unit. Chamber bias is generated within the display unit by an electronic high voltage supply, eliminating the need for expensive battery changes.

The Atomlab 200 Dose Calibrator provides inventory management, quality assurance, and record-keeping functions. The dot matrix printer allows hard copy records to be produced for all functions. The microprocessor-driven memory provides inventory control for 25 samples, storing and correcting the volume, activity, and moly concentration. When drawing a dose from an inventory sample, the Atomlab 200 will display the required volume for a



specific dose and, if required, print a decay chart showing required volumes for that dose at future times.

The Atomlab 200 facilitates dose calibrator quality assurance with automatic constancy and linearity functions. The system stores and decay corrects Co-57 and Cs-137 reference sources and compares the measured activity to the calculated activity for the daily constancy test.

Quarterly linearity tests are simplified by software which guides the user through the attenuator tube procedure (regardless of which brand you use), stores all values, and does all calculations.

For radiopharmaceutical quality control, the Atomlab 200 performs all counting and calculations for paper chromatography tests, computing the percentages of free pertechnetate, hydrolysed reduced Tc-99m, and labelled isotopes.



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The optional RS-232 port enables the Atomlab 200 Dose Calibrator to communicate with most commercially available nuclear medicine management systems.

Features:

- All functions microprocessor controlled
- Ultra-fast response
- Automatic range selection Ranges up to 9.999 curies of Tc-99m or 2.5 curies of F-18
- Factory programmed for the most commonly used radionuclides
- Display in Curies or Becquerels
- Automatic background subtraction and zeroing at the touch of a button
- Remote ionization chamber with .25" (.64 cm) lead shielding and 10-foot cable
- Self-diagnostic software
- Daily constancy isotope keys
- Electronic power supply (no battery in chamber)
- Industry exclusive two-year warranty
- Inventory control of 25 samples, correcting for volume, activity, and moly concentration
- Volume determination and future dose computations
- Pharmaceutical quality control programs
- Isotope decay projection
- Automatic linearity calculations using attenuator tubes
- Dot matrix printer

Specifications :

Isotope Selection Keys: Ten factory programmed — Tc-99m, Mo-99, Tl-201, I-123, Xe-133, Ga-67, In-111, I-131; Cs-137, and Co-57; 3 user-defined keys

Activity Range: 0.01 μ Ci to 9999 mCi (.001 MBq to 399.9 GBq) of Tc-99m

Energy Range: 25 keV to 3 MeV photons

Response Time: One second for doses greater than 2 mCi; Three seconds for doses between 200 μ Ci and 2 mCi;

Digital Calibration Dial: Four-digit LED dial display with increment/decrement keys to change the value.

Range is from 0.1 to 999

Display Unit:

Dimensions: 12" w x 14.3" d x 3.75" h (30.5 x 36.3 x 9.5 cm)

Weight: 6 lb (2.7 kg)

Detector Unit Dimensions: 7.5" w x 7.5" d x

16.25" h (19 x 19 x 41.3 cm) **Well Internal Dimensions:** 2.75" dia x 10.5" h (7 x 26.7 cm)

Well Internal Dimensions with Liner: 2.5" dia x 10.25" h (6.35 x 26 cm)

Atom Lab 200 Dose Calibrator

Includes Vial/Syringe Dipper, Well Liner and Printer

Atom Lab 200 Dose Calibrator with RS-232 Port.

ACCESSORIES

Paper Rolls

Printer Ribbon

Dose Calibrator Interlocking Shielded Rings

Molly Shield (Vial)

Lineator

Replacement Well Dipper

Replacement Well Liner

REFERENCE SOURCES

Co-57 370MBq

Cs-137 7.4 MBq

