

Atomlab™ 100 Plus Dose Calibrator



- 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
- Pre-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 (3.05 m) cable
- Self-diagnostic software
- Daily constancy isotope keys
- Electronic power supply (no battery in chamber)
- Industry exclusive two-year warranty
- Clock/Calendar
- Print "peel and stick" syringe/vial labels and patient labels
- Constancy reports with carbonless copies for Co-57, Cs-137, and Ba-133
- Save up to two months of constancy data
- RS-232 bi-directional serial communications port
- Dot matrix printer (with tractor feed)
- ETL to UL 3101-1 and cETL to CAN/CSA C22.2 No. 1010.1-M92

The ATOMLAB 100Plus performs all standard dose calibrations and then some. The Atomlab 100Plus 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, 12 are pre-programmed for the most commonly used radionuclides and 1 is user defined. There are 88 isotope-specific dial values listed in the manual, including Y-90 and Sr-89. 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.

Print Labels and Constancy Reports...

The ATOMLAB 100Plus will generate peel and stick labels. Each label shows the selected isotope, activity, date and time. At the time the label is printed, a carbonless copy is also produced for department record keeping. The Power-Up/Self-Test Report is automatically printed. Constancy Reports for Co-57, Cs-137 and Ba-133 may be selected for the current or previous month. Constancy Reports are easy to read and feature three caution warnings: measurement error that exceeds $\pm 5\%$ of the decayed standard, error that exceeds 10% of the decayed standard and decayed standard less than 50 μ Ci.

086-265 Dose Calibrator, Atomlab™ 100 Plus, 115 VAC
Includes RS-232 port, Vial/Syringe Dipper, Well Insert and Printer

The RS-232 port enables the Atomlab 100Plus Dose Calibrator to communicate with most commercially available nuclear medicine management systems.

Clock/Calendar...

Enter time and date in setup mode with a few simple keystrokes, and the ATOMLAB 100Plus will continually update this information and automatically print it on all reports.

SPECIFICATIONS:

- Isotope Selection Keys: 12 pre-programmed — Tc-99m, Sr-89, Tl-201, Mo-99, I-123, Xe-133, Ga-67, In-111, I-131, Cs-137, Co-57 and Ba-133; one additional for user defined isotope
- 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 between 200 μ Ci and 2 mCi; 3-30 seconds below 200 μ Ci
- Detector Linearity: $\pm 1\%$ or 0.2 μ Ci, whichever is greater
- Electrometer Linearity: $\pm 1\%$ or 0.2 μ Ci, whichever is greater
- Electrometer Accuracy: $\pm 1\%$ or 0.2 μ Ci, whichever is greater
- Overall Accuracy: $\pm 3\%$ or 0.3 μ Ci, whichever is greater; overall accuracy is affected by such factors as the accuracy of the specific source calibration, geometric variations due to sample volume or configuration, detector linearity, electrometer accuracy and readout accuracy
- Repeatability: $\pm 0.3\%$ above 1 mCi short term (24 hr); 1% long term (1yr)
- Digital Calibration Dial: Four-digit LED dial display with increment/decrement keys to change the value; range is from 0.1 to 999
- Detector: Well-type pressurized ionization chamber, with Argon fill gas; well opening 2.75" (7 cm), well depth 10.5" (26.7 cm)
- Detector Shielding: .25" (6.3 mm) lead on all sides except top well opening; supplementary shielding available
- Chamber Bias: 340 volt electronic power supply
- Environmental Operating Conditions:
 - Temperature: 0-40° C
 - Humidity: 0-90% rh, non-condensing
- Power Requirements: 100 to 120 VAC @ 1/2A; 200 to 240 VAC @ 1/4A
- Line Frequency: 50/60 Hz; detachable line cord; built-in EMI filter and transient suppression
- Detector and Interface Cables: 10' (304.8 cm) long, six conductor cables (two carry power, one is chassis ground, three carry serial data for digital I/O); ends terminated with AMP Mate-n-Lock connectors, white with hooded strain relief
- Display Unit:
 - Dimensions: 12" w x 14.3" depth 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" depth x 16.25" h (19 x 19 x 41.3 cm)
 - Well I.D.: 2.75" dia x 10.5" h (7 x 26.7 cm)
 - Well I.D. with Liner: 2.5" dia x 10.25" h (6.35 x 26 cm)
 - Lead Shielding: .25" thick (.63 cm)
 - Weight: 35 lb (16 kg)
- Approvals: ETL to UL 3101-1 and cETL to CAN/CSA C22.2 No. 1010.1-M92



DISTRIBUTED BY:



Medi-Nuclear Corporation
3162 Martin Rd
Walled Lake, MI 48390
www.medinuc.com

1-800-423-4226
248-926-9500 direct
248-926-0400 fax
info@medinuc.com

BIODEX