ATOMLAB 100

DOSE CALIBRATOR

Designed for facilities receiving unit doses including PET and Beta.

The Atomlab 100 provides fast, accurate radionuclide activity measurements with performance that easily surpasses the most stringent regulatory requirements.

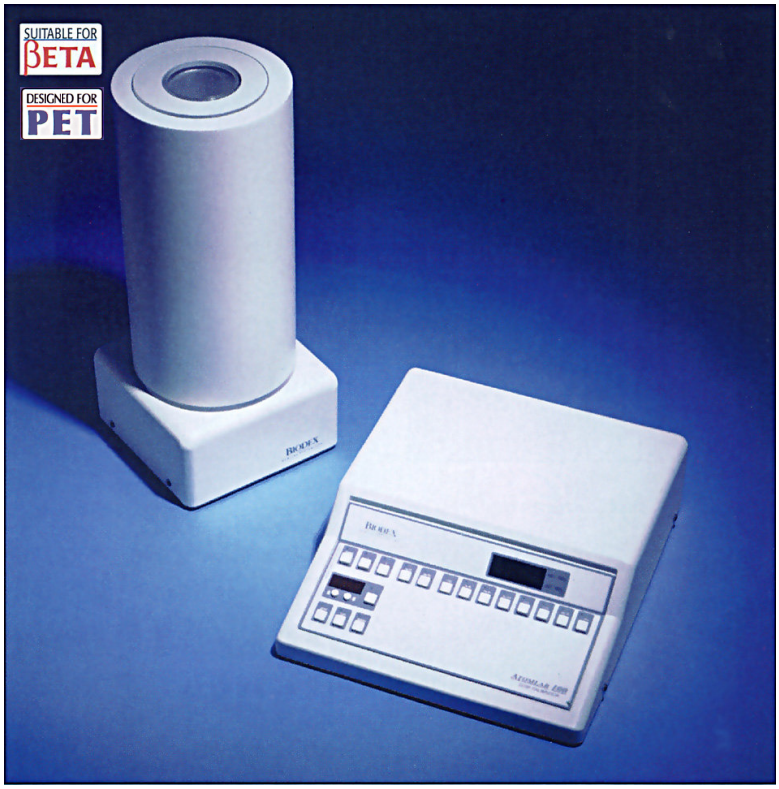
The unit is simple to operate. There are 13 isotope selection keys, ten are pre-programmed for the most commonly used radionuclides, and three are user defined. There are 88 isotope-specific dial values listed in the manual, including Y-90 and Sr-89. Any key can be reprogrammed by the user for a desired 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.

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

An industry exclusive two-year warranty is standard.



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***
- ***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 cable***
- ***Self-diagnostic software***
- ***Daily constancy isotope keys***
- ***Electronic power supply (no battery in chamber)***
- ***Industry exclusive two-year warranty***
- ***ETL to UL 3101-1 and cETL to CAN/CSA C22.2 No. 1010.1-M92***

J. Gravengaard Corporation Medical Imaging Sales & Service

PO Box 20171 Portland, Oregon 97294 Nationwide (800)796-SCAN Local (503)255-0535 Fax (503)255-7047

SPECIFICATIONS:

Isotope Selection Keys: Ten pre-programmed Tc-99m, Tl-201, Mo-99; I-123; Xe-133, Ga-67, In-111, I-131, Cs-137, and Co-57; Three additional keys for user-defined isotopes.
Activity Range: 0.01 µCi 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 closes greater than 2 mCi; Three seconds between 200 µCi and 2 mCi; 3-30 seconds below 200 µCi
Detector Linearity: ±1% or 0.2 µCi, whichever is greater
Electrometer Linearity: ±1% or 0.2 µCi, whichever is greater
Electrometer Accuracy: ±1% or 0.2 µCi, whichever is greater
Overall Accuracy: ±3% or 0.3 µCi, 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: ±0.3% above 1 mCi short term (24 hr); 1% long term (1 yr); exclusive of background
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 is 2.75" (7 cm), well depth is 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 75" 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 1.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

Atomlab 100 shown in use with the Lineator, Model 086-509, for accurate linearity testing.

086-250 Dose Calibrator, Atomlab 100, 115VAC $5,600.00
Includes RS-232 port, Vial/Syringe Dipper and Well Insert.
086-258 Dose Calibrator, Atomlab 100, 230VAC 5,600.00
Includes RS-232 port, Vial/Syringe Dipper and Well Insert.

Related:

086-301 Dose Calibrator Shielding Rings, Interlocking, 2" lead $2,100.00
For additional protection from high energy activity.
086-423 Moly Shield, Vial, .28" lead 125.00
086-435 Moly Shield, Syringe, .28" lead 425.00
086-509 Lineator 495.00

Replacement:

086-242 Vial/Syringe Dipper $70.00
086-241 Well Insert 70.00

Prices subject to change without notice.

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