

Breakthrough In Thyroid Testing

Announcing

TRIOSORB^{Trademark} T-3 DIAGNOSTIC KIT*

An in vitro test unmatched in accuracy, speed & convenience

Triosorb represents a major breakthrough in thyroid testing because it replaces the red blood cells in the test. Triosorb sponge is a polyurethane foam in which is embedded a pre-measured ion exchange resin.

ACCURACY: Because only serum is used (instead of red blood cells) and there are only 3 washings, accuracy is greatly increased. Triosorb also permits accurate evaluation of thyroid function under certain circumstances where other standard methods may not be applicable. For example, it may be used following the administration of iodine-containing compounds or during the course of treatment with thyroid medications.

SPEED: Triosorb sponge can be washed quickly. The 3 washes can be completed in one or two minutes—compared to the red cell technique requiring 5 time-consuming washes and centrifugations. Triosorb does not require an incubator or shaker.

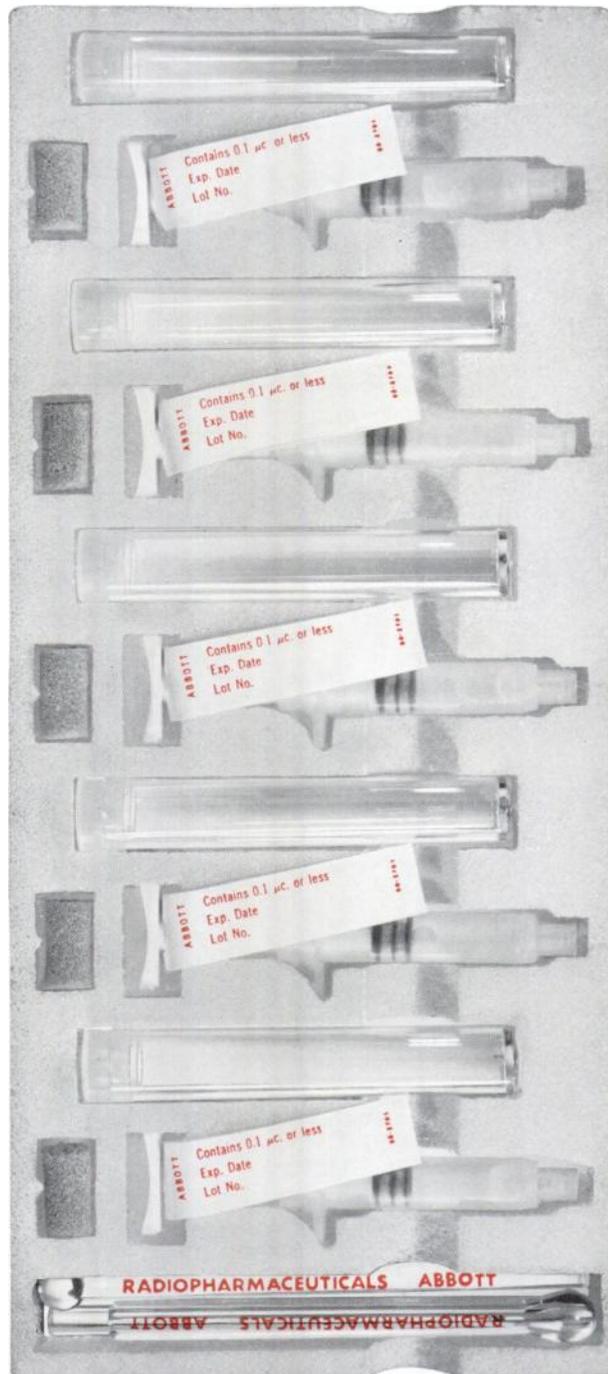
CONVENIENCE: It is in a disposable kit form ready for immediate use at room temperature (25° C.). Correction factors are available if room temperature varies.

SAFETY: No dilution or pipetting of radioactive material is necessary. Since the patient receives no radioactive material, the test can be used in children, pregnant women, or in adults who fear ingestion of even tracer doses of radioactivity. Each syringe contains only 0.1 μ c. or less of I^{131} activity—an amount so minute that no special licensing is required by the AEC for its use.

FLEXIBILITY: The test does not require the presence of the patient for the determination of the radioactivity. The serums can be frozen and saved until a sufficient number has been collected to run a rack full of tubes at one time.

SUPPLIED: Each Triosorb Diagnostic Kit is made up of two trays (such as the one pictured to the right) containing: 10 syringes filled with Triomet®-131 [Iodine-131, formerly called Radio-L-triiodothyronine (I^{131})], 10 Triosorb Sponges, 10 plastic test tubes with caps, 2 plungers, and 2 aspirator tips.

Triosorb is available to all physicians, hospitals and clinical laboratories—AEC licensing is not required.

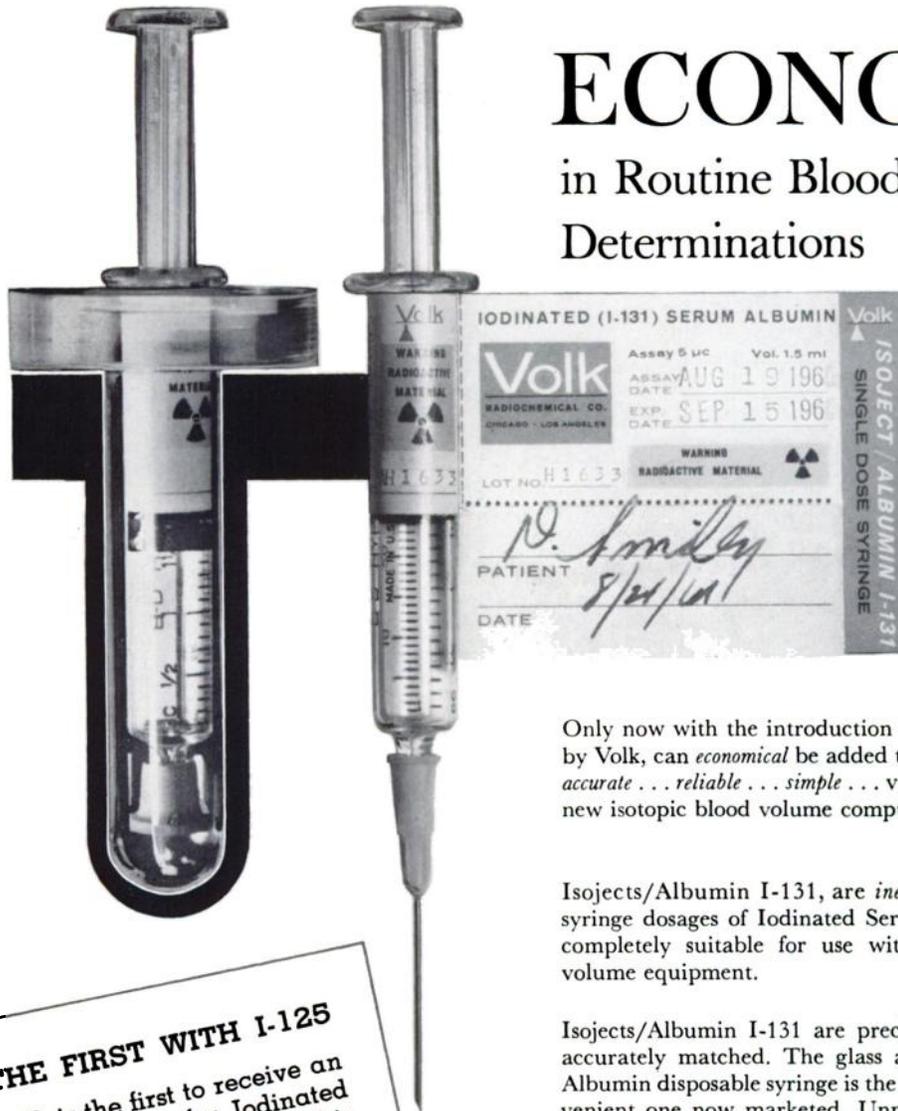


ABBOTT LABORATORIES
PIONEERS IN RADIO-PHARMACEUTICALS
North Chicago, Illinois / Oak Ridge, Tennessee

*Patent applied for.

ECONOMY

in Routine Blood Volume Determinations



Only now with the introduction of Isojects/Albumin by Volk, can *economical* be added to the terms: *fast . . . accurate . . . reliable . . . simple . . .* validly describing the new isotopic blood volume computer technic.

Isojects/Albumin I-131, are *inexpensive* individual syringe dosages of Iodinated Serum Albumin I-131, completely suitable for use with automatic blood volume equipment.

Isojects/Albumin I-131 are precisely measured and accurately matched. The glass and rubber Isoject/Albumin disposable syringe is the safest and most convenient one now marketed. Unnecessarily elaborate packaging has been eliminated to make possible a unit dosage cost of less than \$1.50 per measurement with volume purchasing.

Available in 5 and 10 microcurie potencies. All necessary adjuncts—disposable needles, well-crystal guard tubes, blood sample tubes, and Isoject Adaptors for any machine—are furnished by Volk.

For further details or to order: Call Collect

THE FIRST WITH I-125

Volk is the first to receive an N.I.H. license for Iodinated Serum Albumin I-125. This 60-day half-lived, low radiation dose, product is also available in Isoject/Albumin form and usable in modified automatic equipment.

Volk RADIOCHEMICAL CO.

CHICAGO
8260 ELMWOOD, SKOKIE
TEL. 312 673-3760
TWX 312 677-6768

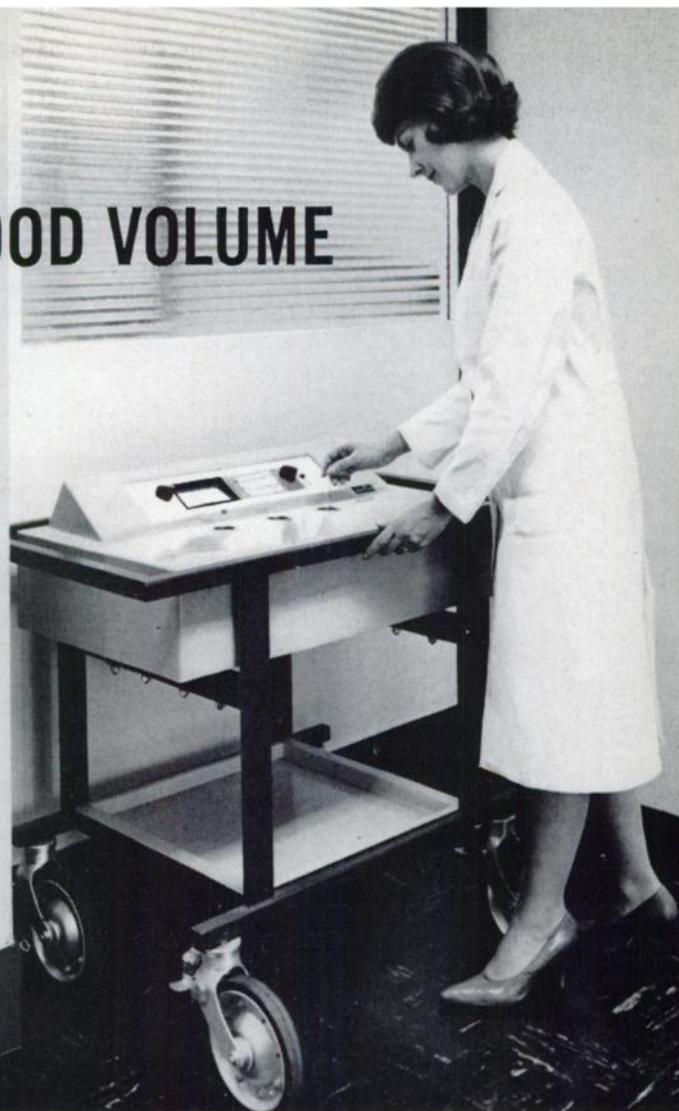
LOS ANGELES
803 N. LAKE, BURBANK
TEL. 213 849-6023
TWX 213 846-7301

NEW YORK
P. O. BOX 345
NEW YORK 5, N. Y.
TEL. 212 891-9091

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P. O. BOX 335
SILVER SPRINGS, MD.
TEL. 301 587-5337

DETERMINE BLOOD VOLUME

- Quickly
- Easily
- Accurately



VOLĒMETRON® ■ Clinically proven and accepted ■ Attested in over 40 scientific papers

VOLĒMETRON is the original automatic, electronic blood volume computer now used in hospitals throughout the world to facilitate the management of blood loss and replacement, having proved itself by extensive experience and thousands of patient studies.

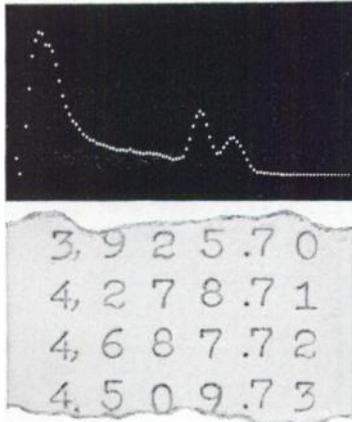
Now you can obtain vital, precise blood volume data in **your** hospital—at the bedside, in the laboratory, or **right in the operating room**:

- **Quickly**... within 15 minutes
- **Easily**... VOLĒMETRON itself guides the operator through the simple 3-step procedure
- **Accurately**... to within 100 cc for an adult; to within 20 cc for a child

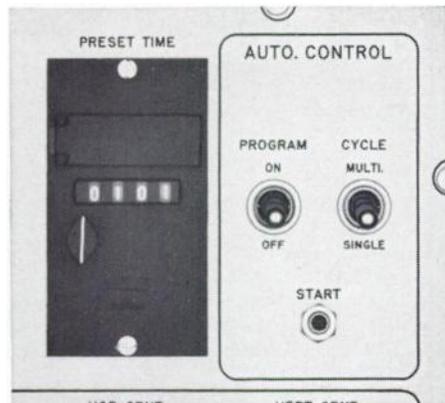
VOLĒMETRON is the recipient of national awards for excellence of design—a rugged, mobile, all-transistorized diagnostic instrument, built to perform dependably in daily hospital use. This versatile, lifetime-warranted instrument is also used routinely for other diagnostic applications. For further information and literature, or to arrange a demonstration of VOLĒMETRON in your hospital, write to: Sales Manager, Ames Atomium, Inc., 575 Middlesex Turnpike, Billerica, Mass. (Or telephone, collect: Area Code 617 — 663-6531.)

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Ames Atomium, Inc.



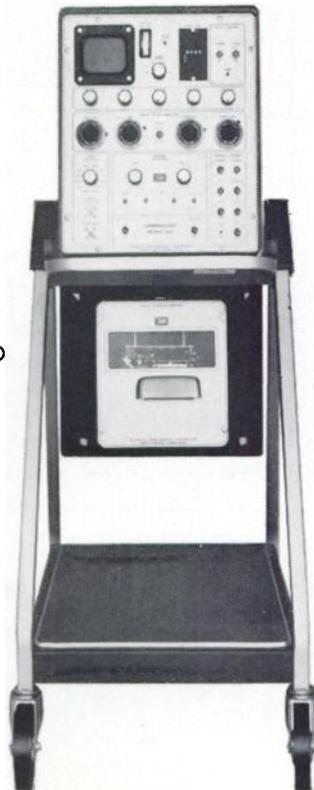
a complete 100-channel analysis



**automatically — in a fraction of the time
required by a scanning spectrometer**

**with the
GAMMASCOPE®
PULSE HEIGHT ANALYZER**

\$5990
Including digital printer



The Gammascope provides extremely fast and accurate analysis of whole body counts, thyroid uptake studies and virtually all other medical and biological applications of nuclear radiation. Yet the price of the Gammascope, including a digital printer, is comparable to that of most single-channel scanning spectrometers.

After initial set-up and calibration the Gammascope will automatically accumulate 100 channels of data — no manual or electrical scanners are needed. The entire analysis operation takes a small fraction of the time that would be required by a single-channel spectrometer.

The build-up of a radiation energy spectrum in the magnetic core memory may be observed on the built-in cathode ray tube display. After accumulation is complete, stored data is read out in digital form — far more accurately than an analog plot made with a strip chart recorder.

The Gammascope combines both single and multi-channel capabilities. A variable "window" (restricted energy range) permits selection of any area of the spectrum, for intensification and study. The primary energy peak can be isolated for count summation by an auxiliary scaler.

All the circuits including high voltage supply, linear amplifier, preset live timer, live time meter, add/subtract logic and static or dynamic display are built into the single, highly portable unit. This essentially replaces an entire rack of equipment that would make up a complete single-channel scanning spectrometer.

Complete operating data and applications information are available from local TMC offices or from Technical Measurement Corporation, 441 Washington Avenue, North Haven, Connecticut. 203 239-2501.



TECHNICAL MEASUREMENT CORPORATION



MEDICAL SCANNER MODEL CS-500

In nuclear medicine, the CS-500 Medical Scanner is a valuable clinical tool for organ or tumor visualization, providing a powerful adjunct to the diagnostic skills of the physician.

The CS-500 features photorecording on X-ray film and teledeltos paper recording to display the distribution and concentration of isotopic labeled compounds localized in selected organs and areas of the human body. Studies utilizing the most recent scanning techniques with newly developed radioactive compounds may be done accurately and quickly.

Truly significant differences are revealed, even at low count rates, by the electronic elimination of background, and expansion of the remaining data photographically over the entire contrast curve.

Mechanically, the CS-500 is simple to operate. Either a unidirectional or a bidirectional mode may be used to direct the scanning movement of the probe in the horizontal plane. The height of this scanning plane above the subject is push-button controlled.

For PENETRATING ANALYSIS, the clinician can have confidence in the CS-500 Medical Scanner because of its proven performance in scores of leading medical institutions throughout North America.

Write to the Nuclear Instrument Department for brochure CS-500.

Scientists: Investigate challenging opportunities with Baird-Atomic. An Equal Opportunity Employer.

BAIRD-ATOMIC, INC.



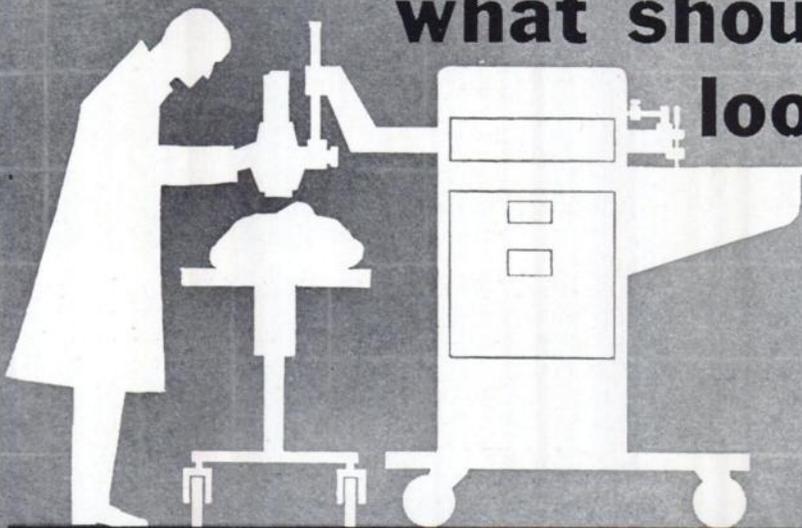
33 University Road, Cambridge, Mass. 02138

Subsidiaries:
Atomic Accessories, Inc., Valley Stream, N. Y.; Chemtrac, Inc., Cambridge, Mass.

Europe: B/A (Holland) N.V., 5A Hartogstraat, The Hague, Holland

when investing in a scintillation scanner

what should you
look for?

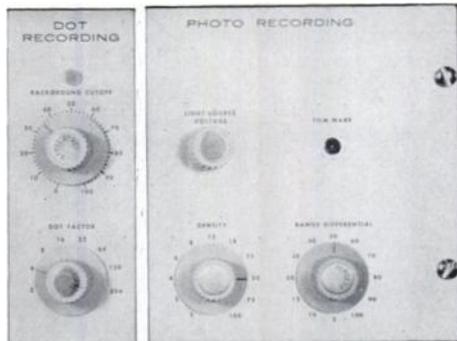


among other things... **independent** controls for
Photorecording and Dot Scanning

To extract the most information out of both the scanning techniques routinely at your command, you should be able to vary background suppression on either separately.

On the Picker Magnascanner the controls for the photorecording system are completely independent of those governing the dot-writing stylus.

Some other scanning instruments arbitrarily restrict you to a single suppression control for both systems.



DOT
RECORDING
CONTROL

PHOTO
RECORDING
CONTROL

PICKER
nuclear

Magna Scanner

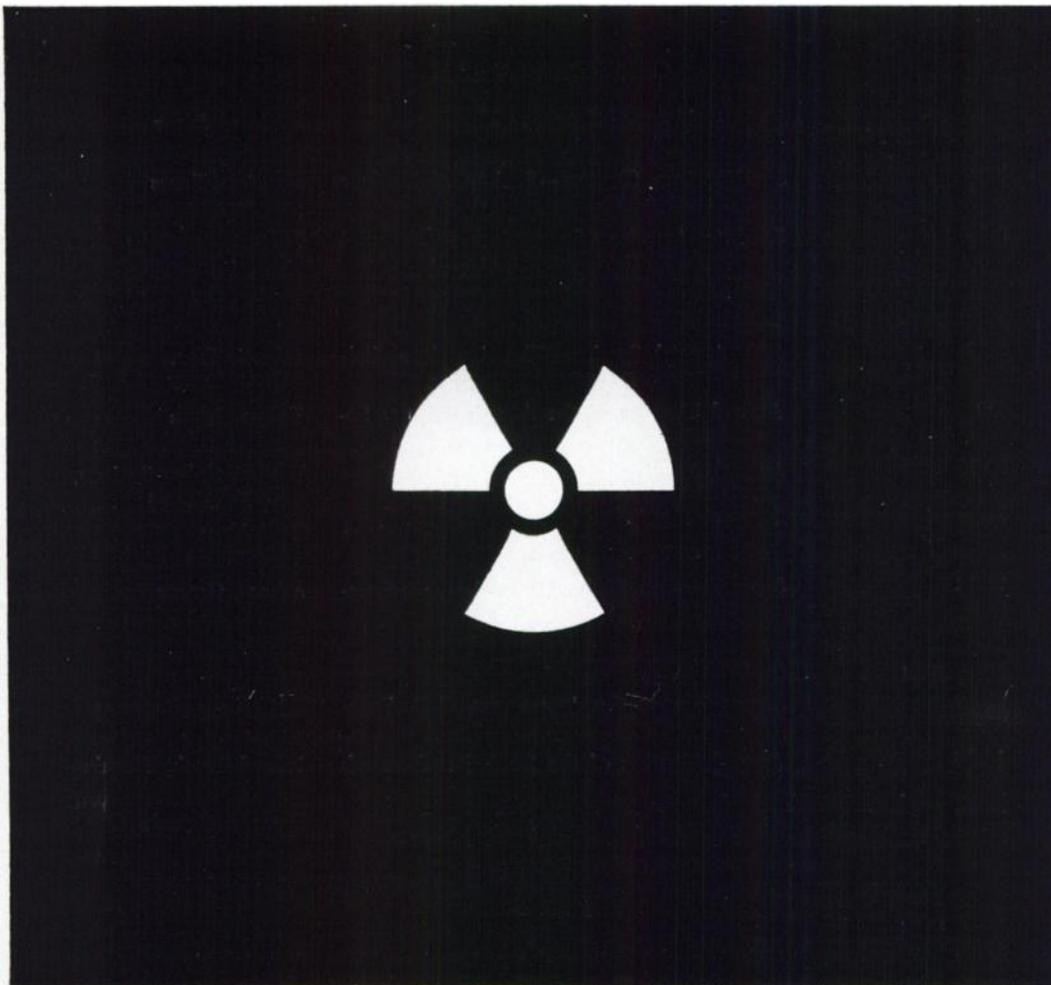
the *versatile* scanner / the *proven* scanner

PICKER NUCLEAR

DIVISION

PICKER X-RAY CORPORATION

WHITE PLAINS, NEW YORK



 **MEDOTOPES[®]**
SQUIBB RADIOPHARMACEUTICALS

Medotopes reflect the latest developments in nuclear medicine. All provide the utmost in safety and convenience. All have unique packaging safeguards so that direct contact is never required. Exclusive lead shield enclosures are fitted with bottle caps that unscrew automatically. Saf-Tag[®] vials and bottles are carefully encased and double protected by transparent, shatterproof plastic coatings, and shipping cartons have convenient "pull-tab" openers. And, each preparation is custom-handled, each delivery custom-routed by Squibb Traffic Service. Access to three major airports expedites shipment.

Squibb Radiopharmaceuticals are available to the AEC-licensed physician. For full information, write to Professional Service Dept., Squibb, 745 Fifth Avenue, New York 22, N. Y.

SQUIBB
Squibb Quality—the Priceless Ingredient
DAVIDSON DIVISION **Olin**



DETECTOR POSITIONING STAND



The Ohio-Nuclear, Inc. Model 72B Detector Positioning Stands hold scintillation detectors and shields at any height or angle relative to a seated or prone patient. They are especially convenient for thyroid and renal uptake studies.

These stands are available in both one- and two-detector models. The two-detector model has two separate columns on the same base so that each detector may be positioned completely independently.

The Model 72B Stands are built for detectors with crystals two inches in diameter or less and one inch of lead shielding. The shield shown is eight inches long and accepts interchangeable collimators.

The vertical height of the detector is changed manually by lifting or pushing down on the arm which supports the shield. The shield and supporting assembly is counterbalanced.

In addition to vertical and horizontal movement, the detector may be rotated about three different axis to obtain the desired angle relative to the patient.

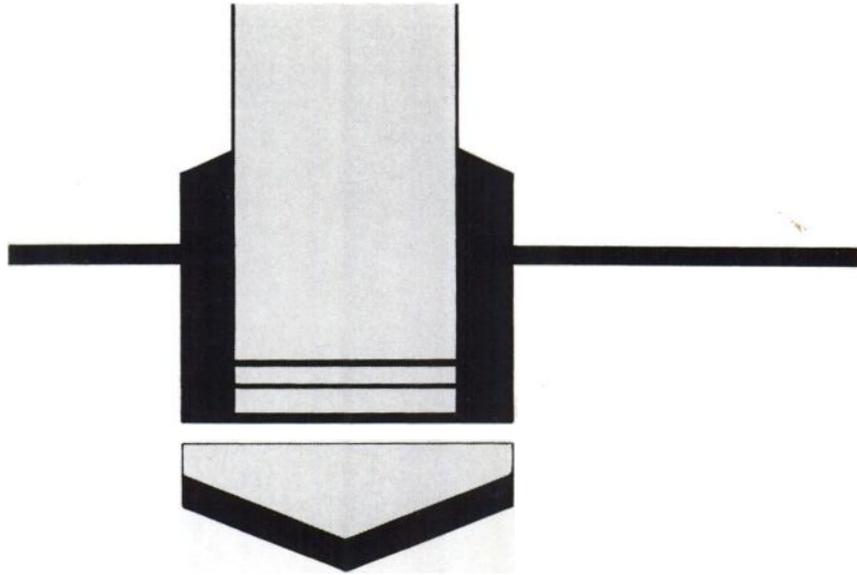
The low base is mounted on rubber-tired, ball-bearing casters and is weighted to assure stability with the shield in any position.

Dimensions and specifications: overall height 67 inches; base height 7 inches; detector height variable 27 to 53 inches above the floor; detector extends to 35 inches from column; base dimensions 27 x 34 inches; rubber bumpers on corners of base; construction of anodized aluminum, stainless steel, and chrome plated steel.

Our usual one year unconditional warranty applies. Prompt shipment from stock. Write or telephone collect for additional information (Area code 216 Telephone 621-8477).

OHIO — NUCLEAR, INC.

1725 FALL AVENUE
CLEVELAND 13, OHIO



RADIOCANNING PHARMACEUTICALS

**NOW NUCLEAR_x OFFERS
Chlormerodrin Hg203
("NEOHYDRIN")**

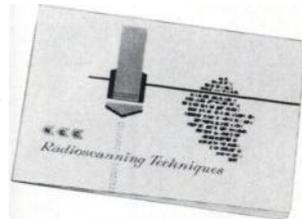
**OF UNSURPASSED QUALITY
AND AT REDUCED PRICES**

New processing methods provide a product with no free mercury and possessing unusual long term stability. You gain with better scans, minimal patient dosage, and lower cost when you specify NUCLEAR_x. In single dose vials or bulk quantities.

**NOW AVAILABLE
Chlormerodrin Hg197
FOR SCHEDULED SHIPMENT**

Same excellent quality as Hg-203, but shorter half-life provides smaller patient dosage. Write for quotation or information.

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NUCLEAR CONSULTANTS CORP.

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CLEVELAND 7, OHIO, 17907 Detroit Ave., LA 1-2222

CHICAGO 2, ILL., 25 E. Washington St., FI 6-4630
SAN FRANCISCO, CALIF., 1615 Polk St., GR 4-6060
HOUSTON 6, TEXAS, 3715 Graustark St., JA 2-5541

COUNT UP TO KNOW

Precision Digital Ratemeter



Nuclear Counting for Dynamic Function Studies

In dynamic function studies — such as cardiac insufficiency, renal function, and blood circulation — it is essential to record the rapidly changing concentrations of radioactivity as they occur. The University II Series Precision Digital Ratemeter Model 425 immediately and accurately records all pertinent events for precise evaluation.

With a new patented transistorized design, the 425 records all events occurring in a pre-selected time interval and transposes the data instantaneously into a buffer storage "memory". Rate per second is then determined and displayed as often as every tenth of a second; rate per minute, every hundredth of a minute. Only a fraction of a millisecond is needed at the end of each interval to actuate the digital display. (Pulse-events as rapid as one million counts per minute can be detected and displayed!) No information is lost.

In effect, ordinary ratemeter lag is eliminated, and there is no "smoothing" of the radioactivity curve.

The output data are available in three forms — as a visual display on the face of the instrument; as a printed paper tape record indicating counts per unit of time, time interval, and selected range; and as an analog-record of the curve plotted on a standard chart recorder. The researcher can easily correlate this information for the most accurate interpretation of the dynamic function being studied.

COUNT UP TO KNOW in all dynamic clinical or research studies with the University II Series Digital Ratemeter Model 425. Write to the Nuclear Instrument Dept. for brochure 425 or for a demonstration by a field engineer.

Scientists: Investigate challenging opportunities with Baird-Atomic. An Equal Opportunity Employer.

BAIRD-ATOMIC, INC.



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Europe: B/A (Holland) N.V., 5A Hartogstraat, The Hague, Holland

universal II scintiscanner

Shown with 3" Detector and Photoscanner

Scans in ANY PLANE
with
Patient in Any Position



Model ST-300, 3 inch Scintimeter, complete with lead shielding and four focusing collimators, provides minimum background count and maximum resolution.

Variable Scan Speed and Adjustable Spacing

The only scanner that accepts both 2 and 3 inch detectors for scanning in any plane, Curtis Nuclear's Model SN-250 Scintiscanner is designed to scan the brain, heart, liver, kidneys and other vital organs with no discomfort to the patient. A one operator instrument, its modular construction permits its use with a wide selection of detectors, collimators, and counting and recording instruments. Features includes "joy stick" positioning, no large "over-the-patient" structure, illuminated outline of scan area, and universal head assembly that allows a multitude of tests in addition to scanning.

When connected with the dual, transistorized Photoscanner, Model PS 123T, the scanner provides a choice of either continuous film exposure (rate) or periodic exposure (integral).

Write for complete information and specifications to . . .

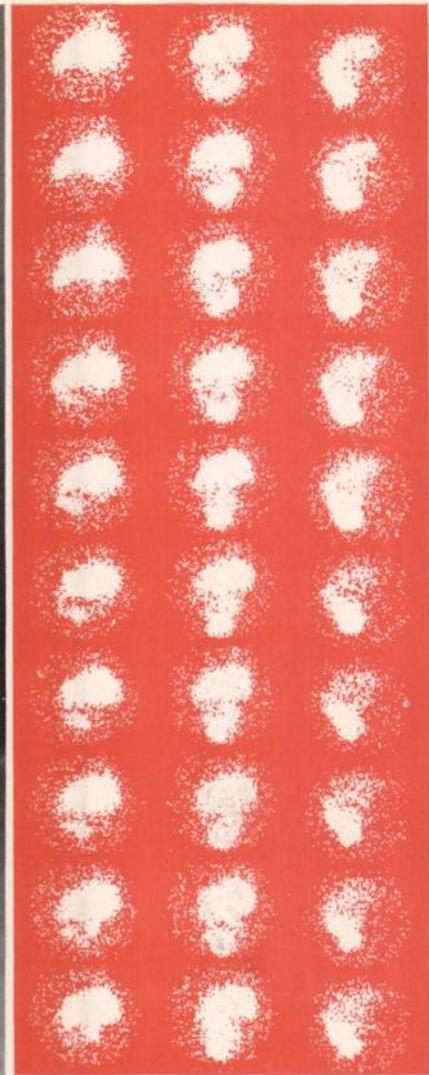
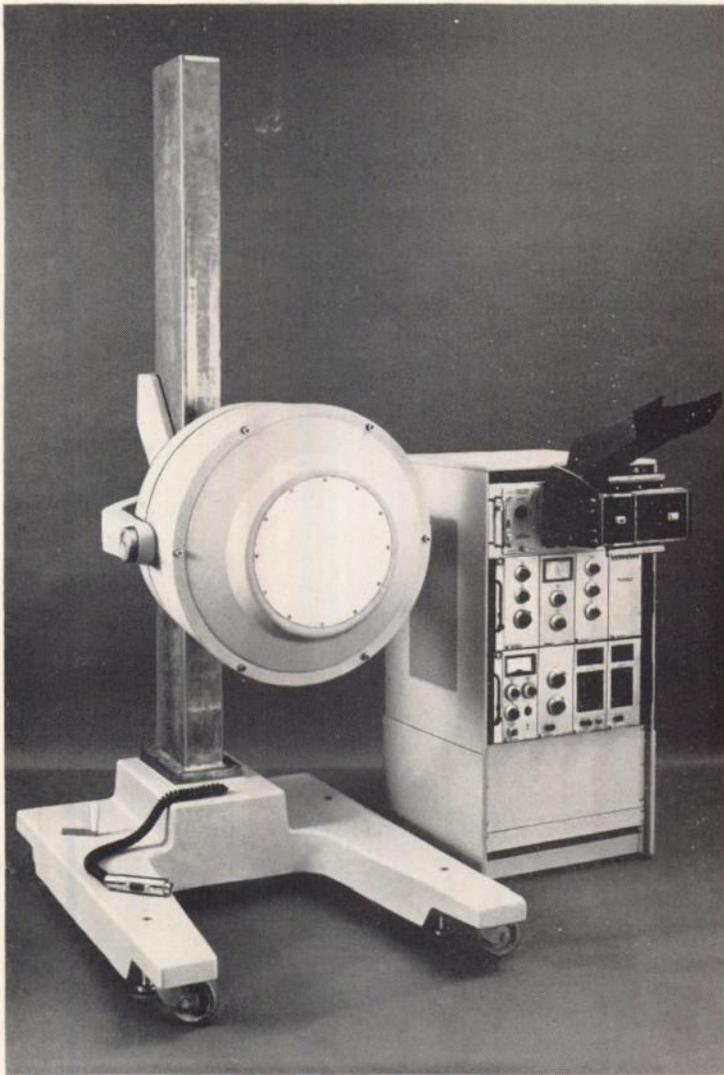


CURTIS NUCLEAR CORPORATION

"first in scanning"

THE ORIGINAL REED-CURTIS

1645 West 135th Street Gardena, California



PHO/GAMMA IS A NUCLEAR-CHICAGO TRADEMARK

PHO/GAMMA SCINTILLATION CAMERA RAPIDLY PICTURES ISOTOPE DISTRIBUTION IN THE BODY

The PHO/GAMMA Scintillation Camera rapidly and with great sensitivity visualizes human and animal organs containing isotope-

labelled compounds. Its usefulness in both research and clinical applications has been successfully demonstrated by the accurate diagnosis of thyroid, kidney, liver, and brain disorders.

Completed images of radioisotope distribution in organs or body areas can be produced and recorded at speeds of from one to fifteen minutes, depending upon the isotope administered and the region under examination. These speeds are in the range of three to ten times faster than those possible with photo-mechanical isotope scanners.

The instrument also produces

rapid-sequence, stop-motion images of dynamic processes. These stop-motion pictures are, in effect, "isotope movies" which accurately depict the flow of labelled compounds into and out of an organ. Such information provides the investigator and diagnostician with valuable insights into body processes.

Please consult your Nuclear-Chicago sales engineer or write for complete information. NUC-D-4-218



NUCLEAR-CHICAGO

A DIVISION OF NUCLEAR-CHICAGO CORPORATION

313 Howard, Des Plaines, Illinois 60018