# SMALL ANIMAL WHOLE BODY COUNTER FOR LIVE ANIMALS

Model ~ LIVE-1

## FEATURES:

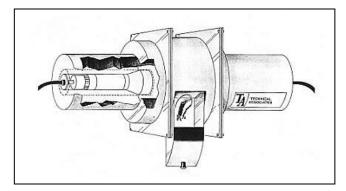
- SEES GAMMAS & HIGH ENERGY BETAS
- DUAL CHANNEL ANALYZER
- DUAL Nal DETECTORS
- REPEATABLE COUNTING GEOMETRY READINGS WITHOUT SACRIFICING THE ANIMAL.

ELECTRONICS: LAM-SCA-DSC

- VERSATILE AC & RECHARGEABLE BATTERY
- THREE PRESETTABLE WINDOW
  POSITIONS
- SWITCH SELECTABLE
- SIX DECADES
- DUAL SINGLE CHANNEL ANALYZER
- 2 INDEPENDENT DETCTOR INPUTS
- COINCIDENCE CIRCUIT SIGNALS IF BOTH DETECTORS SEE A PULSE AT THE SAME TIME
- **OPTIONAL:** LARGER ANIMAL CHAMBER



LIVE-1



LIVE-1 Schematic

## **APPLICATION:**

Ideal for laboratory use.

Small live animals can be scanned, maintaining a repeatable counting geometry without harming the animal.

## **Description:**

- 12" diameter cylinder with horizontal axis roughly 30" long, and mounted to a base.
- 6" dia x 6" long animal chamber with ventilation ports.
- A drawer in the side of shield provides a 4 3/4" x 4" opening to insert and remove the animal.
- Chamber has a removable stainless steel liner ease of cleaning,
- A removable grating is provided for the animal to stand on and for the droppings to fall through.



LAM-SCA-DSC



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Divisions of US NUCLEAR CORP

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### **COUNTING CHAMBERS**

- The thin metal windows on the two detectors are protected by metal grills with a high percentage of open area.
- Each detector is surrounded by 2" of lead on all sides.
- Recessed protected detectors and to minimize effects of animal position on the count rate.

#### DETECTORS

- Two each 3" diameter x 1" thick Nal crystals with a thin window 0.020" (0.5mm) to accept low energy radiation such as that from I-125 as well as higher energies.
- > Each detector is optically coupled via a light pipe to a high quality photomultiplier tube.
- > Counting efficiencies excluding geometry are approximately:
  - Approx. 36% for Zn-65 at 1.1MeV X-rays.
  - Approx. 36% for Fe-59 at 1.1 & 1.3MeV Gammas.
  - Approx. 85% for Tc-99m at 0.14MeV Gammas.

#### ELECTRONICS: LAM-SCA-DSC

- > Precision automatic lab scaler incorporating a dual single channel analyzer keeps background count rate low.
- > The dual single channel analyzer also allows the count of one isotope to the exclusion of another.

### **OPTIONS:** (Available upon Request)

- Larger animal chamber and loading port available upon request.
- Other window material and thicknesses.
- Thinner or thicker lead (Pb) shield.





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