



500B Gamma Alarm



The 500B GAMMA-ALARM is a portable, battery powered alarm system designed for Gamma-ray inspection areas utilizing an internal GM tube. The alarm will indicate audibly before and visually when an exposure is in progress. The pre-set threshold level is typically $7.5\mu\text{Sv/h}$ unless otherwise specified. The 500B GAMMA-ALARM can also be used anywhere in the world as it can accommodate a supply voltage from 100V AC to 240V AC 50/60Hz.

INDICATORS

The 500B has three separate indicators:

- A GREEN lamp indicating the unit is switched on and radiation is below the set threshold.
- An AUDIBLE alarm indicating that an exposure is about to take place (pre-warning).
- A RED strobe lamp indicating that the radiation is above the pre-set threshold.
- A RED neon lamp indicating that the unit is connected to the mains and is charging.

CONTROLS

The 500B Gamma-alarm has two switches to control the various functions:

- On / Off switch – This controls whether or not the 500B Gamma-alarm is powered on.
- Pre-warning push-button – This push button initiates the AUDIBLE alarm immediately prior to exposure in the GREEN “no radiation detected” state. The AUDIBLE alarm is automatically switched off when radiation is detected.

TYPICAL OPERATING PROCEDURE

CAUTION – The 500B Gamma-alarm is not intended to replace a calibrated survey monitor. A calibrated survey monitor must be used at all times during industrial radiography. Before use always check the alarm responds to radiation. This can be done by placing the alarm next to a loaded isotope projector and switch on. The surface dose rate will trigger the unit.

1. Locate the 500B within the intended radiation area,
2. Press the On / Off button to the “On” position,
3. Press the Pre-warning button, the Audible alarm will sound. Allow the Audible alarm to sound for the full pre-warning time (min 10 sec's)
4. Expose the radiation source, the Audible alarm will cease, the GREEN lamp will extinguish and the RED flashing lamp illuminate,
5. At the end of the radiation exposure the RED lamp will extinguish and the GREEN lamp will illuminate.

CHARGING

The GREEN lamp will flash when the battery needs charging. Average continuous working time for a fully charged battery is 24 hours. To recharge simply connect to the power supply with the charging lead. An overnight charge is usually sufficient to fully charge the battery. If the battery is flat the 500B Gamma-alarm can be operated directly from the power supply with the charging lead.

NB: Always keep the battery in a fully charged condition. Do not store with a discharged battery as this may severely shorten battery life.

SPECIFICATION

Detector – Halogen quenched GM Tube	Range – Gamma 100keV to 1.3MeV
Calibration – Caesium 137 standard	Saturation test – 400Sv/h, 40kR/r
Audible alarm – 95db(A) at 1 meter	Portable – Carrying strap
Hazard lamp – Xenon Red Flashing Lamp	Safe lamp – LED Green Lamp
Weight – 3.2kg (7lb)	Battery – 12v 3.4AH sealed lead acid
Dimensions – 235mm (L) X 110mm (W) X 245mm (H)	