

DOSITEC® NUKE SAFEGUARD

User's Guide



Easy to Use

The device has three indications:



Green flashes

Safe indication

The faster the Green LED flashes the higher the level of radiation



Red flashes & audible alarm **High-level radiation presence**

Leave the area or drop the carried package



Yellow flashes

Battery low indication

Change battery needed

Multiple Fastening Options

Clip. Wristband, Magnetic Strip or Velcro

- Clip on shirt:
- Wear on wrist
- Place in car or on refrigerator

Models

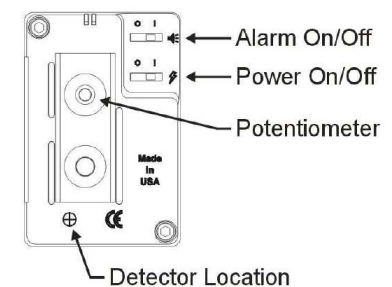
- K8 With alarm and red LED indication
- H8 With a trimmer for adjusting trigger level

Operations

- Slide power switch “⚡” to “I” position to turn unit on, three LEDs, green, red and yellow, should blink, and it is ready for use.
- Slide alarm switch “🔊” to “I” position for turning alarm on.
- Unit with trimmer the threshold can be adjusted as follows:

- a) Put the unit in a known radiation field.
- b) Adjust potentiometer until the red LED just flashes. The unit threshold is set and ready for use.

Note: Turn trimmer clockwise for lowering threshold



General Description

Nuke Safeguard is specially designed for public nuclear safety concerns.

It is a nuclear radiation alert device for detecting radiation and radioactive materials nearby. This high performance and high sensitivity miniature radiation trigger device protects people from radiation exposures.

This device uses flashing green LED as a radiation intensity indication and flashing red LED and/or audible alarm as warning signals.

Battery Replacement

1. Remove two screws from the cover.
2. Slide the battery out
3. Push in a new CR2032 lithium battery
4. Put cover and screws back (do not force)
5. The unit is ready for use

Important Safety Information

1. Keep at minimum of 20 cm away from microwave, cellular phone or any high RF generators such as TV remote controls, 2-way radios.
2. Drops or mechanical impacts will trigger LED flashes.

Detection Range

With 20 keV to 10 MeV detection range capability, it detects both low energy emission radionuclides such as I-125 & Pd-103 commonly used in nuclear medicine and radiation therapy in hospitals, and high energy ones such as Cs-137, Co-60, Ir-192, I-131, U-235, & Ra-226. It also detects high- energy beta emitters: Y-90 & P-32. Such radionuclides are possible for use in a dirty bomb.

Detection Capability & Sensitivity

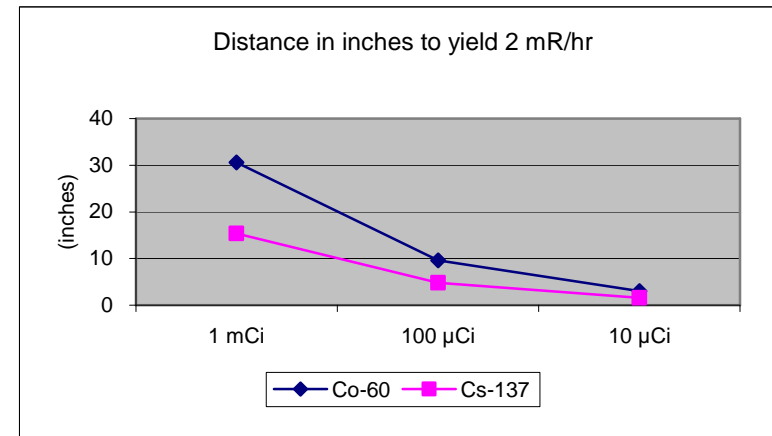
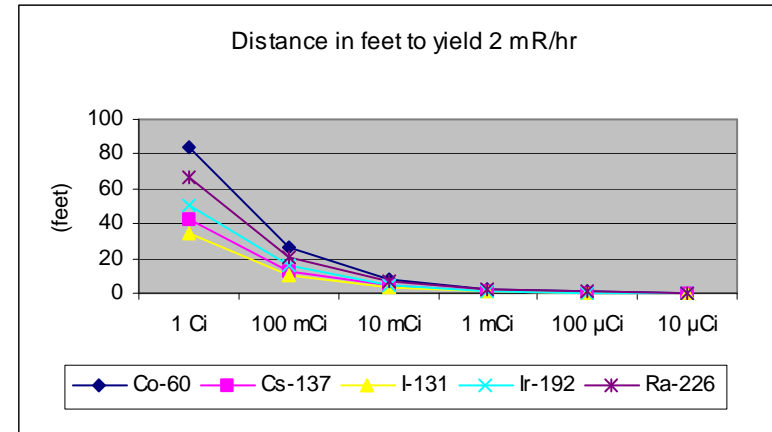
It is capable of detecting very small amounts of radioactive materials within a reasonable distance, e.g., Green LED flashes approx. every 5 seconds at

- 7.5 cm from a 10 μ Ci Cs-137
- 15 cm from a 10 μ Ci Co-60

Specifications

<i>Detector</i>	Solid-state detector.
<i>Detection</i>	X & gamma: 15 KeV and 10 MeV Electrons & beta particles: 600 KeV and up
<i>Sensitivity</i>	For Cs-137, e.g., Green LED flashes approximately every 5 seconds in a 0.5 mrem/hr field and every 2.5 seconds in a 1 mrem/hr field
<i>2 mrem/hr Warning</i>	Green LED flashes rapidly, approx. every second
<i>Warning Signals</i>	Red flashes & alarm beeping @ ~10 mrem/hr ***Custom setting available
<i>Adjustable Range</i>	0.5 – 1,000 mrem/hr with a trimmer option available
<i>Alarm</i>	80 dB @10 cm

Green LED flashes every second at the distance for various isotopes



<i>Battery</i>	One standard lithium CR2032
<i>Battery Life</i>	1500 hours in a background radiation
<i>Power Indication</i>	3 LEDs blink when power switch on
<i>Natural Radiation</i>	Green LED flashes approximately every 30 minutes for responding natural radiation
<i>Relative Humidity</i>	Up to 95%
<i>Operating Temperature</i>	-10°C to +45°C
<i>Packaging</i>	High impact plastic
<i>Size (approx.)</i>	1" x 1.5" x 0.475" (2.5 cm x 3.9 cm x 1.2 cm)
<i>Weight (approx.)</i>	1/2 oz (13 grams)

All specifications are subject to change without notice