

Quick Reference Guide **Radiation Detector**

Description:

This radiation detector, Model 2241-2, is designed to test for exposure to Alpha, Beta or Gamma radiation in the event that radioactive contamination is suspected. The kit includes a digital survey and gross counting meter with GM and scintillation radiation detectors.

Calibration:

Calibration should be performed **every year**. The instrument should be calibrated with the exact detector with which it will be used. An electronic calibration alone is not sufficient to satisfy regulatory requirements. A calibration **must** include exposure of the detector to a known source and activity of radioactive material.

Storage:

Store the unit in the Watertight Protector Case. Store the batteries outside of the survey meter when not in use to prevent leakage.

Operation:

1. The number and color on the sticker on each probe corresponds with the toggle switch on the survey meter. Be sure that #1 (red) and #2 (yellow) stickers match on the probe and the survey meter.
2. Use the check source on the side of the survey meter to verify that the unit is operational. The expected reading for the check source is listed on the side of the survey meter.
3. Measure background radiation and record reading prior to surveying the patient or the area.
4. Use the “fast” response on the toggle switch on the survey meter when searching for contamination.
5. Use the “slow” response on the toggle switch on the survey meter when quantifying contamination. Slowly move the detector over small surfaces at a height of a few inches.
6. Switch on the “audio” toggle switch when surveying for contamination so that the meter does not have to be watched.
7. Keep probes protected from contamination by covering with a baggie. The probes may be cleaned with Windex.

Decontamination Procedures:

If two meters are available, scan the patient prior to entering the decontamination tent. See **Standard Operational Guideline** for detail. Decontaminate highly contaminated areas first, preventing runoff from contaminating wounds and unexposed areas prior to doing a full body scan. If clothing is contaminated, it must be removed, placed in a sealed plastic bag and removed from the area so that it does not affect the survey readings.

If only one meter is available, scan the patient after they have been decontaminated. See **Standard Operational Guideline** for detail.

Cleaning:

The equipment should be cleaned with soap and water after each use. Another detector will be needed to ensure that the instrument is free of radioactive material.