

## RDS BASE UNIT

NSN 6665-01-671-4539

A new level of ruggedness and reliability - the Radiological Detection System (RDS) is the world's most robust military-grade emergency detection kit available. Designed to withstand a nuclear blast and continue to display accurate radiation readings, RDS will not let you down.

The RDS consists of a Base Unit and multiple probes (Beta-Photon, Alpha-Beta, Alpha-Beta-Gamma Pancake, Sensitive Gamma, Neutron, and FIDLER) for detecting and characterizing the various types of radiation. Designed to eliminate interoperability challenges, conveniently select the appropriate radiation readings to give you the correct information to make the right call every time.

With advanced Smart Probe technology, you can confidently hot-swap probes from one Base Unit to the other without skipping a beat. With no dependency on a specific Base Unit, each probe retains its own calibration data.

The RDS Base Unit is intended for high reliability, mission-critical applications. It is durable, easy to use, and built to last.



## FEATURES

- Military-grade reliability
- Common Base Unit interface for 6 individual probes
- Hot-swapping Smart Probe technology allows any RDS probe to be used with any Base Unit
- Consistent LCD Interface for all probes
- 45 Hours of data storage
- Ergonomic design
- Stealth mode
- Operates on 4 AA-size batteries
- Complies with ANSI N42.17 using Cs-137 as reference source
- Survey data downloads, calibration, and firmware upgrades via Rad-Extender

# SPECIFICATIONS

## Radiological

|                        |  |
|------------------------|--|
| Units of Measurement   | Count Rate - cpm, cps.<br>Dose/Exposure Rate - mrad/hr, $\mu$ Gy/hr, mrem/hr, $\mu$ Sv/hr, mR/hr<br>Total Dose/Exposure - rad, Gy, rem, Sv, R                                    |
| Detection              | Gamma/x-ray radiation -<br>0.1 $\mu$ Gy/hr - 100 Gy/hr<br>Photon detection - 60 keV - 3 MeV<br>Beta detection - 200 keV - 3 MeV<br>Neutron & Alpha detection with external probe |
| Data                   | Records detection readings, date/time, location. 45+ hours of data storage   |
| Detectors              | Low dose and high dose Geiger-Mueller tubes  |
| Dose Measurement Range | 0.01 $\mu$ Sv to 10 Sv (1 $\mu$ rem to 1000 rem)   |

## Operational

|           |  |
|-----------|--|
| Operation | 8 buttons for easy menu access and navigation                          |
| Display   | High contrast, impact resistant LCD screen, visible in direct sunlight |
| Alarms    | Audible and visual   |
| Audio     | 3mm audio jack for headset operation                                   |

## Electrical

|       |                                  |
|-------|----------------------------------|
| Power | 4AA batteries or AC Power Supply |
|-------|----------------------------------|

## Mechanical

|            |   |
|------------|---|
| Dimensions | 8.3" x 3.45" x 2.2" (21.1 x 8.8 x 5.7 cm) |
| Housing    | Anodized cast aluminum                    |
| Weight     | 1.66 lb. including 4AA batteries (.75 kg) |

## Environmental

|                      |   |
|----------------------|---|
| Operating Temp.      | -22° to 122.7°F (-30° to 50°C)            |
| Storage Temp.        | -58° to 140°F (-50° to 60°C)              |
| Relative Humidity    | 3% to 100%                                |
| Ingress Protection   | IP67                                      |
| Salt Fog             | Resistant (MIL-STD 810G, Method 509.5)    |
| Explosive Atmosphere | Intrinsically safe                        |
| Immersion            | Water & salt water 1 meter deep - 30 min. |

## Standards Compliance

|         |  |
|---------|--|
| CE      | CE Compliant, EMC (2014/30/EU), Low Voltage (2014/30/EU) |
| FCC     | FCC Part 15, Sub-part B, Class B                         |
| ANSI    | ANSI N42.17 ANSI N42.34                                  |
| MIL-STD | MIL-STD 461F, MIL-STD 1686C, & MIL-STD 810G              |

## Ordering Information

|         |                          |
|---------|--------------------------|
| V038429 | Base Unit                |
| V038863 | FIDLER Probe             |
| V040005 | Alpha-Beta Probe         |
| V038313 | Sensitive Gamma Probe    |
| V038820 | ABG Pancake Probe        |
| V038276 | Beta-Photon Probe        |
| V039097 | Neutron Probe            |
| V041227 | Telescoping Probe Handle |
| V038669 | Base Unit to Probe Cable |
| V062817 | Rad-Extender             |

