

# SAW MiniCAD™ mk II

## Chemical Warfare Agent Detector



- ➔ Fully automated operation
- ➔ Compact, lightweight, portable
- ➔ LED and audible alarms
- ➔ Solid-state surface acoustic wave microsensor array detector
- ➔ Quick warm-up: 2 minutes
- ➔ 60-second cycle time
- ➔ Records data
- ➔ Requires no user maintenance
- ➔ 5-year shelf-life

### Quick Identification of Trace Chemical Warfare Agents

The **SAW MiniCAD mk II Detector** is a personal lightweight, solid-state chemical warfare agent detector for simultaneous detection of trace levels of nerve (G) and blister (H) agents. The SAW MiniCAD Detector is highly selective to these agents and is extremely resistant to false alarms.

It operates from either standard off-the-shelf lithium batteries or a rechargeable battery pack and uses proven SAW (Surface Acoustic Wave) sensor technology.

The SAW MiniCAD Detector has set the standard for instrument ease of use and reliability. First Responders in a wide variety of organizations have made MSA's MiniCAD Detector their first choice in detection of chemical warfare agents.



### **SAW MiniCAD mk II Detector includes:**

- Battery Charger
- Soft Protective Case
- Four Lithium Batteries
- Hard Waterproof Carrying Case



The **SAW MiniCAD mk II Detector** uses a pair of Surface Acoustic Wave (SAW) microsensors. SAW sensors are piezoelectric crystals that detect the mass of chemical vapors absorbed into chemically selective coatings on the sensor surface. This absorption causes a change in the resonant frequency of the sensor.

The internal microcomputer measures these changes and uses them to determine the presence and concentration of chemical agents. The SAW sensor coatings have unique physical properties which allow reversible adsorption of chemical vapors.

### **SAW MiniCAD Detector Specifications**

#### **Weight**

18 oz. including batteries (0.5 kg)

#### **Dimensions**

1.3 x 4.3 x 5.2 inches (3.2 x 11.0 x 13.0 cm)

#### **Sensor Technologies**

Surface Acoustic Wave  
Microsensor Array

#### **Analysis Time**

60 seconds

#### **Visual Display**

6 status LEDs

#### **Warm-Up Time**

2 minutes

#### **Alarm Types**

GA, GB, GD, GF and HD

#### **Alarm Thresholds**

GA 0.2 mg/m<sup>3</sup>  
 GB 0.5 mg/m<sup>3</sup>  
 GD 0.1 mg/m<sup>3</sup>  
 HD 1.0 mg/m<sup>3</sup>

#### **Internal Battery Type**

Lithium cells (Type DL123A)

#### **External Battery Type**

6v 3.4Ah maintenance-free battery, rechargeable

#### **External Mission Life**

6 – 8 hours

#### **Audible Alarm**

97dB at 0.1 meter

#### **Data Output**

2400 baud (6-pin mini DIN connector)  
RS232c serial ASCII port

#### **Shelf Life**

5 years (limited by life of battery in battery-backed RAM)

#### **Operating Temperatures**

5° to 40°C, 41° to 105°F

#### **Operating Humidity**

0 to 95% non-condensing

#### **Warranty**

One year (or 500 hours of use) parts and labor

### **Ordering Information**

Part Number	Description
10074824	SAW MiniCAD mk II Chemical Warfare Agent Detector

**Note:** This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

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