






## H<sub>2</sub>S GUARDIAN GAS DETECTOR

### Calibration Procedure:

Calibration is recommended every 180 days to ensure the device will accurately respond to H<sub>2</sub>S gas. Gas detection devices can diverge from factory settings over time for a variety of reasons, including: gradual chemical degradation of sensors, chronic exposure to extreme environmental conditions, exposure to over-range concentrations, etc.

**⚠WARNING! DO NOT SERVICE DEVICE IN A HAZARDOUS ENVIRONMENT⚠**

To calibrate the detector, follow these steps:

1. Hold both buttons for 10seconds to enter calibration mode. Press  at any time to exit.
2. In a clean air environment (outside) press  to begin the Zero calibration. Wait for countdown.
3. When zero is complete, use 1/4" OD, 1/8" ID Tygon tubing attached to the calibration gas cylinder and sensor inlet to flow calibration gas at 0.5L/min, then press  to start cal step.
  - Graphic Controls recommends the use of 15 ppm calibration gas cylinders.  
Only use certified, traceable gas cylinders before expiration date.
4. The Guardian will then automatically calibrate itself, and notify you if calibration is successful.

See Diagram on page two for illustration and explanation of detector controls, functions, and displays.

*Please contact Graphic Controls about our factory calibration service program at 1-800-669-1535 or [www.graphiccontrols.com](http://www.graphiccontrols.com).*

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## GUARDIAN EXTERNAL PARTS/FEATURES:

### **Lanyard Loop (with Clip on back):**

*Use this to attach to shirt or other location*

### **Sensor Inlet:**

*Where the gas is measured, (keep it clean & do not puncture the membrane)*

### **LED Indicators (4 around LCD):**

*These red lights will flash when H<sub>2</sub>S concentration is high enough for an alarm*

### **LCD Display:**

*Shows H<sub>2</sub>S concentration from 0-400 ppm (other details in lower figure)*

### **Buzzer/Speaker:**

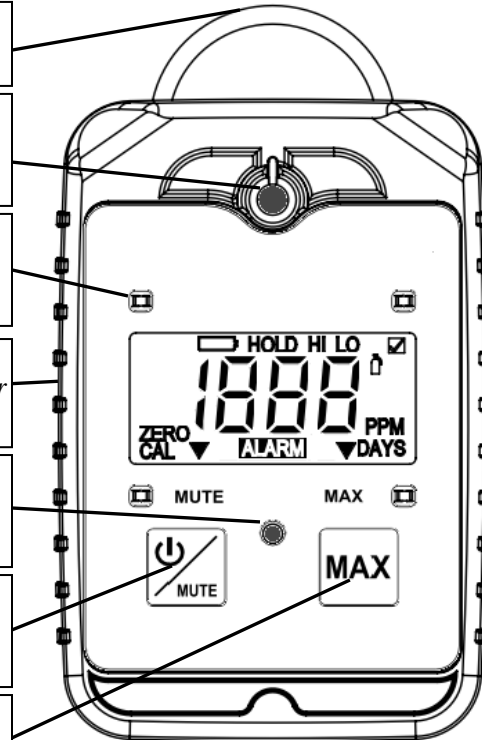
*Makes beeping noises when an alarm is active, (do not puncture the membrane)*

### **Power/MUTE Button:**

*Press & hold to turn power ON or OFF  
Press to mute the buzzer for up to 5 mins*

### **MAX Button:**

*Press to make the LCD remain at the maximum H<sub>2</sub>S concentration measured*



## LCD DISPLAY ELEMENTS:

### **HOLD:**

*Displays with a countdown for powering off or entering calibration mode*

### **HI:**

*Displays when the High 15 ppm alarm is exceeded*

### **LO:**

*Displays when the Low 10 ppm alarm is exceeded*

### **Battery Indicator:**

*Displays when the battery is low*

### **ZERO:**

*Displays as 1<sup>st</sup> step during calibration, to establish 0 ppm status*

### **CAL:**

*Indicates device is in calibration mode*

### **Alarm:**

*Displays when 10ppm exceeded*

### **Checkbox:**

*Indicates successful zero or cal step during calibration mode*

### **Gas Calibration:**

*Displays when applying gas in CAL mode*

### **PPM:**

*Displays when measuring H<sub>2</sub>S*

### **DAYS:**

*At startup, indicates # of days until calibration due*

### **Arrows:**

*Displays over MUTE to indicate alarm is muted  
Displays over MAX to indicate max ppm mode on*

