SINGLE GAS DETECTOR (mini SERIES)
FORENSICS DETECTORS™

FORENSICS DETECTORS

*** * WARNING * ***

- KEEP DETECTOR **AWAY** FROM ELECTROMAGNETC & MAGNETIC INTERFERENCES (i.e. PHONES & MAGNETS)
- STORE DETECTOR **WITHIN SPECIFICATIONS**
- IF UNWELL, SEEK CLEAN AIR & MEDICAL HELP.
- **DO NOT** OPEN THE UNIT
- **KEEP AWAY** FROM DUST & PARTICULATE AND NEVER EXPOSE TO EXHAUST GAS or CONCENTRATED VAPORS, HARSH CHEMICALS OR EXTREMELY HIGH CONCENTRATION LEVELS AS IT MAY POISON THE SENSOR
- **FOLLOW INSTRUCTIONS AS THE DETECTOR IS VERY SENSITIVE**
- **TO ENSURE** ACCURACY, CALIBRATE DEVICE AT LEAST **EVERY 6 MONTHS**

INTRODUCTION

You have purchased the **SINGLE GAS DETECTOR by FORENSICS DETECTORS.** This is our ***mini SERIES*** with a robust design and made using a high quality electrochemical sensor made in the UK. The detector has a time, alarm functionality, adjustable alarm levels, flashlight and is calibration friendly. Ideal for industrial, business, home or R&D. The new device is already calibrated so just Turn ON and GO!

OPERATION

ON/OFF: Press POWER button for 3 seconds. After self check, normal gas detection begins and gas concentration level is show with time and battery indicators.
MENU MODE: Press both UP and DOWN buttons for 1 second. You will enter into the main menu. Use UP and DOWN buttons to make your selection, then press SELECT button to make your selection.

MENU OPTIONS

SET ZERO: Expose to ZERO air for 2 minutes using certified gas or fresh air (only for O2 Detectors, expose to pure N2). Maintain a flow of 0.5L/min when using gas bottles and use the sensor cap provided to deliver the gas to the detector. Then press SELECT (save) to register the ZERO reading.
SET CALI: Enter calibration gas concentration – usually mid point of detection range or lowest alarm level. Expose to calibration air for 2 minutes using your chosen certified gas. For O2 detectors, simply expose the detector to fresh air that has 20.9% of O2 (ambient air). Maintain a flow of about 0.5L/min when using gas bottles and use the sensor cap provided to deliver the gas to the detector. Then press SELECT (save) to register the reading.
SET TIME: Follow screen instructions.
RECORD: Time-stamped history of alarm activation.
Example of a RECORD stamp is as follows:
Example: 15 - 1 - 00:05 LOW
Interpretation: MONTH-DAY-HOUR-MINUTE [LOW or HIGH]

LOW ALARM: Low Alarm point setting. Change alarm levels with UP and DOWN buttons. Press SELECT (save) button when done. When the detector reaches this alarm point, it will alarm and will time and date stamp this event within in the RECORD menu item screen.
HIGH ALARM: High Alarm point setting. Change alarm levels with UP and DOWN buttons. Press SELECT (save) button when done. When the detector reaches this alarm point, it will alarm and will time and date stamp this event within in the RECORD menu item screen.

BATTERY CHARGING

The product has a built-in lithium battery and is charged via micro-USB. When the battery mark on the screen is full, charging is completed. **DO NOT charge in dangerous test locations to avoid fire or explosions.**

SPECIFICATIONS

Sensor: Electrochemical Sensor
Sensor Life: 2 years (comes with calibration certificate)
Detection Range: see Table 1
Error: <±5% F.S. of detection range (see Table 1)
Recovery/ Response Time: < 30 seconds
Storage / Operating Temperature: 14F–122F
Storage / Operating Humidity: <95%RH
Battery: DC3.7V Li-Ion battery 1500mAh
Dimension/Weight: 3.9x2.3x1.2inches, 4.3oz
Rating: ATEX certified Ex ib IIB T3 Gb. IP65 certified.
Charging Time: 4 hours, Operating Time: >20 hours

Support & Sales

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amazon

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Table 1: Mini Series gas detectors offered by FORENSICS DETECTORS™

Gas	Range	Low Alarm	High Alarm
H2	0-1000ppm	35ppm	250ppm
H2S	0-100ppm	10ppm	15ppm
CO	1000ppm	35ppm	200ppm
CO2	0-50,000ppm	1000ppm	2000ppm
C2H4O	0-20ppm	10ppm	15ppm
O2	0-30%	19.5%	23.5%
NH3	0-100ppm	25ppm	50ppm
Cl2	0-20ppm	5ppm	10ppm
O3	0-20ppm	5ppm	10ppm
SO2	0-20ppm	2ppm	5ppm
PH3	0-20ppm	0.3ppm	5ppm
NO	0-250ppm	20ppm	50ppm
NO2	0-20ppm	5ppm	10ppm
HCN	0-500ppm	10ppm	20ppm
HCl	0-50ppm	10ppm	20ppm
CH2O	0-10ppm	2ppm	5ppm
VOC	0-100ppm	20ppm	50ppm

What is CALIBRATION?

First, your product is already calibrated, ready to use. Turn ON and GO. However, calibration is an important function to be performed to ensure your gas detector operates accurately (EVERY 6 MONTHS). Accuracy and Calibration drift can happen over time because of chemical degradation of sensors and the natural drift in electronic components. There are two parts to the calibration, ZERO Calibration and SPAN Calibration.

ZERO CALIBRATION: Ensures a good baseline to ZERO target gas exposure. This ensures the detector reads a true ZERO. For example, for CO detectors, this is performed in fresh air, with NO carbon monoxide present.

SPAN CALIBRATION: Ensures accurate gas concentration reading (i.e. ensure that the display reading in ppm is accurate and true). For example, an OSHA safety officer using a CO detector used in the field would want to calibrate to a concentration of 50ppm, since ambient CO is usually in the lower range. The span calibration gas concentration is best chosen to represent the concentration that the sensor typically is exposed to, as to ensure maximum accuracy for daily application usage.

What is Bump Testing?

Bump testing is to expose the gas detector to a small amount "blast" of target gas to ensure the detector operates and alarms as programmed. The function of this test is to verify detection operation and build user confidence, particularly in hazardous and critical user applications.

GAS SAMPLING PUMP

Not required but recommended for continuous monitoring or gas sampling in isolated areas (hard to get to areas) such as sewers, tanks, shafts, etc...

Sold Separately. Amazon.com product ASIN: B07GKJDCKQ

ROBUST WORK DESIGN

The professional series detector is a robustly designed unit. It arrives with a calibration cap and cable charger with an attached metal belt clip. The detector conforms to a variety of qualifications:

CE ATEX certified Ex ib IIB T3 Gb
IP65 certified

Product Designed in California, USA
Product Tested, QA/QC in California, USA
Product Calibration Verification in California, USA
Product Packaged in California, USA
Product Made in China

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