

BW Technologies XT-XWHM-Y-NA

BW Technologies GasAlertMax XT II 4-Gas Detector Instruction Manual

Model: XT-XWHM-Y-NA

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1. INTRODUCTION

The BW Technologies GasAlertMax XT II is a robust, handheld four-gas detector designed for monitoring ambient levels of Hydrogen Sulfide (H₂S), Carbon Monoxide (CO), Oxygen (O₂), and combustible gases. This device is essential for personal safety in various occupational settings, including petroleum refineries, tanneries, sewage treatment facilities, and paper mills.

Key features include:

- Continuous monitoring of H₂S, CO, O₂, and combustible gases.
- Simultaneous audio, visual, and vibration alarms for gas detection.
- Integrated diaphragm pump for localized atmospheric sampling.
- Alphanumeric LCD screen displaying real-time gas concentrations, alarm types, and device status.
- Single push-button operation for ease of use.
- Data logging capability for the 10 most recent gas exposure events.
- Powered by a replaceable AA alkaline battery.
- Automatic self-tests for sensor integrity, circuitry, and alarms.
- Durable, concussion-proof housing with an IP 66/67 rating for water resistance.
- CE and ATEX certified, UL classified as Intrinsically Safe Apparatus.



Figure 1: The image displays the yellow BW Technologies GasAlertMax XT II 4-Gas Detector, its power adapter, two clear sampling tubes, a small screwdriver, and a filter, representing the complete product package.

2. SETUP

2.1 Battery Installation

1. Ensure the device is powered off.
2. Locate the battery compartment on the back of the detector.
3. Open the compartment and insert one AA alkaline battery, ensuring correct polarity.
4. Securely close the battery compartment. The battery provides approximately 14 hours of operational life.

2.2 Initial Power-On and Self-Test

Upon activation, the GasAlertMax XT II performs an automatic self-test to verify its functionality. This includes:

- Sensor integrity check.
- Circuitry verification.
- Audible and visual alarm functionality test.
- Battery level assessment.

The device will display the results of these tests on the LCD screen. A constant flashing heartbeat icon indicates normal functioning after the self-test is complete.

3. OPERATING INSTRUCTIONS

3.1 Display Information

The alphanumeric LCD screen provides critical information:

- **Real-time Gas Concentrations:** Displays current levels for H₂S, CO, O₂, and combustible gases.
- **Alarm Type:** Indicates the specific type of alarm triggered.
- **Calibration Requirements:** Notifies when calibration is due.
- **Self-Test Status:** Shows pass or fail status of internal diagnostics.
- **Battery Life:** Indicates remaining battery power.
- **Heartbeat Icon:** A flashing icon confirms normal operation.

3.2 Single Button Operation

The device is operated and adjusted using a single push button. Refer to the detailed operational guide for specific button press sequences for menu navigation, calibration, and other functions.

3.3 Alarm System

The GasAlertMax XT II features a comprehensive alarm system to alert users to potentially hazardous gas levels:

- **Audible Alarm:** A 95 dB alarm sounds at varying speeds to indicate the alarm type.
- **Visual Alarm:** Three bright, wide-angled LED alarm bars provide clear visual alerts.
- **Vibration Alarm:** A built-in vibration alarm is crucial in high-noise environments.

Alarms are triggered when gas levels reach any of four preset limits:

- **Low-Alarm Level:** Indicates moderate danger.
- **High-Alarm Level:** Indicates significant danger.
- **Short-Term Exposure Limit (STEL):** Maximum concentration for short, continuous exposure without serious risk.
- **Time-Weighted Average (TWA) Limit:** Maximum average exposure over an eight-hour shift without serious risk.

3.4 Data Logging

The detector automatically logs and retains data for the 10 most recent gas exposure events. This data can be transmitted to a personal computer via an infrared Datalink USB adapter (sold separately) for analysis and record-keeping.

4. MAINTENANCE

4.1 Regular Self-Tests

The detector continuously performs self-tests during operation to ensure sensor integrity, circuitry, and alarm functionality. An automatic shutdown mode activates if the detector fails its self-test, indicating a need for immediate attention.

4.2 Calibration and Bump Testing

Periodic calibration and bump testing are essential to maintain the accuracy and reliability of the gas detector. The GasAlertMax XT II is compatible with the BW Technologies MicroDock II automatic test system (sold separately) for streamlined testing and calibration procedures.

4.3 Battery Replacement

Replace the AA alkaline battery when the low battery indicator appears on the LCD screen or when operational life diminishes. Always use approved battery types.

4.4 Cleaning and Storage

Clean the exterior of the detector with a damp cloth. Do not use abrasive cleaners or solvents. Store the device in a clean, dry environment within the specified temperature range when not in use.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your GasAlertMax XT II detector.

- **Device Shuts Down Automatically:** If the detector activates its automatic shutdown mode, it indicates a failure during a self-test. This requires immediate investigation. Check sensor connections, battery level, and consider a full calibration or service.
- **No Display/Device Not Powering On:** Ensure the AA alkaline battery is correctly installed and fully charged. Replace the battery if necessary.
- **Inaccurate Readings:** Inaccurate gas readings often indicate a need for calibration or a faulty sensor. Perform a bump test and, if necessary, a full calibration. If issues persist, sensor replacement may be required.
- **Alarms Not Functioning:** During the initial self-test, the device checks alarm functionality. If alarms (audible, visual, or vibration) are not working, the device may require service. Do not use the detector if alarms are non-functional.
- **Pump Malfunction:** If the integrated pump is not drawing samples effectively, check for blockages in the sampling tube or filter. Ensure the tube is securely connected.

For issues not covered here, or if troubleshooting steps do not resolve the problem, contact BW Technologies customer support or an authorized service center.

6. SPECIFICATIONS

Feature	Detail
Gas Types Detected	Hydrogen Sulfide (H2S), Carbon Monoxide (CO), Oxygen (O2), Combustible Gases (%LEL)
Measuring Range (H2S)	0 to 200 ppm
Measuring Range (CO)	0 to 1,000 ppm
Measuring Range (O2)	0 to 30%
Measuring Range (Combustible)	0 to 100% LEL, 0 to 5% v/v
Resolution (H2S)	1.0 ppm
Resolution (CO)	1.0 ppm
Resolution (O2)	0.1%

Feature	Detail
Resolution (Combustible)	1% LEL, 0.1% v/v
Temperature Range	-4 to +122 °F (-20 to +50 °C)
Humidity Range	10% to 100% RH (non-condensing)
Audible Alarm Sound Level	95 dB
Dimensions (H x W x D)	5.1 x 3.2 x 1.9 inches (13.0 x 8.1 x 4.7 cm)
Weight	11.92 oz. (338 g)
Battery Type	AA alkaline (1 required)
Battery Life	Up to 14 hours (at +68 to 122 °F / +20 to 50 °C)
Ingress Protection (IP) Rating	IP 66/67
Certifications	CE, ATEX, UL Intrinsically Safe (Class I, Division I, Group A, B, C, D)

7. WARRANTY & SUPPORT

7.1 Warranty Information

Specific warranty details for the BW Technologies GasAlertMax XT II are typically provided with the product packaging or can be obtained directly from BW Technologies or an authorized distributor. Please retain your proof of purchase for warranty claims.

7.2 Customer Support

For technical assistance, service, or inquiries regarding your GasAlertMax XT II detector, please contact BW Technologies customer support. Contact information can usually be found on the manufacturer's official website or in the product documentation.