

GasAlert Extreme

O₂, CO, H₂S, PH₃, SO₂, Cl₂, NH₃, NO₂, HCN, ETO, ClO₂, O₃, or NO

Single Gas Detector

Quick Reference Guide

BW
Technologies
by Honeywell

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- b) the buyer promptly notifying BW of any defect and, if required, promptly making the product available for correction. No goods shall be returned to BW until receipt by the buyer of shipping instructions from BW; and
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GasAlert Extreme

Introduction

This quick reference guide provides basic information for the GasAlert Extreme. Refer to the user manual on the accompanying CD-ROM for complete operating instructions. The GasAlert Extreme gas detector (“the detector”) warns of hazardous gas at levels above user-selectable alarm setpoints. The detector is a personal safety device. It is your responsibility to respond properly to the alarm.

Note

If you have a multi-language detector, English is set as its default. The Portuguese, Spanish, German, and French guides have their screenshots displayed in the corresponding language.

Safety Information - Read First

Use the detector only as specified in this manual, otherwise the protection provided by the detector may be impaired. Read the following **Cautions** before using the detector.

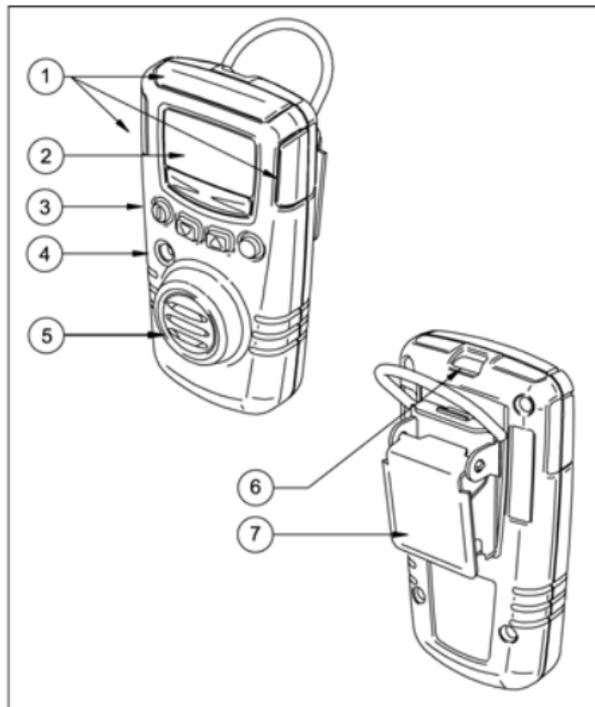
Cautions

- ⇒ **Warning: Substitution of components may impair Intrinsic Safety.**
- ⇒ **Warning: To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.**
- ⇒ **The GasAlert Extreme oxygen detector is classified by Underwriters Laboratories Inc. up to an atmosphere of 21% oxygen.**

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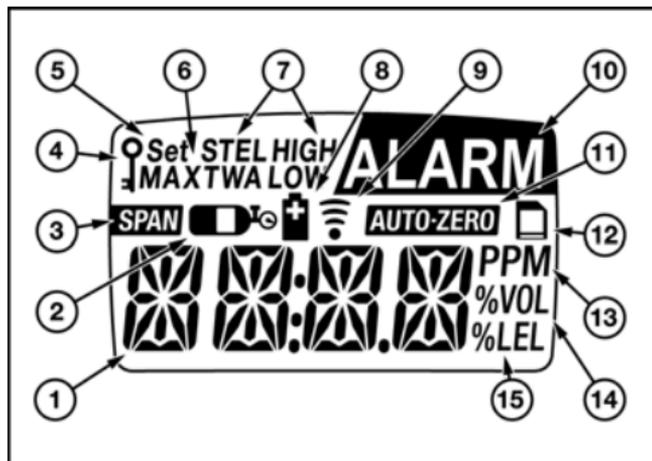
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Parts of the GasAlert Extreme



Item	Description
1	Visual alarms
2	Display
3	Pushbuttons
4	Audible alarm
5	Sensor and sensor screen
6	Infrared communication port
7	Clip

Display Elements



Item	Description
1	Numeric value
2	Gas cylinder
3	Automatic span sensor
4	Pass code lock
5	Set alarm setpoints and user options
6	Maximum gas exposure
7	Alarm conditions
8	Battery
9	Data transmission
10	Alarm or alarm setpoint
11	Automatically zero sensor
12	Optional datalogger indicator
13	Parts per million (ppm)
14	Percentage by volume (% vol.)
15	Percentage by lower explosive limit (% LEL) (future use)

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Pushbuttons

Pushbutton	Description
	<ul style="list-style-type: none">• To turn on the detector, press .• To turn off the detector, press  and hold for 5 seconds.• To activate or deactivate the confidence beep, press and hold  then press  at startup.
	<ul style="list-style-type: none">• To decrement the displayed value, press .• To enter the user options menu, press  and  simultaneously and hold for 5 seconds.• To initiate calibration and setting alarm setpoints, press  and  simultaneously.
	<ul style="list-style-type: none">• To increment the displayed value, press .• To view the TWA, STEL, and maximum gas exposures, press  and  simultaneously.
	<ul style="list-style-type: none">• To save the displayed value, press .• To clear TWA, STEL, and maximum gas exposures, press and hold  for 6 seconds.• To acknowledge a latched alarm, press .

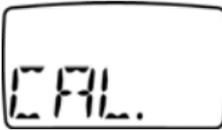
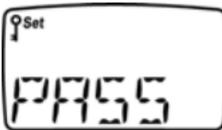
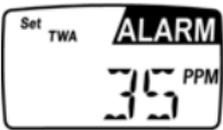
Activating the Detector

To activate the detector, press . Once the detector passes the self-test, the detector begins normal operation.

Deactivating the Detector

To turn off the detector, press  and hold for 5 seconds.

Calibration

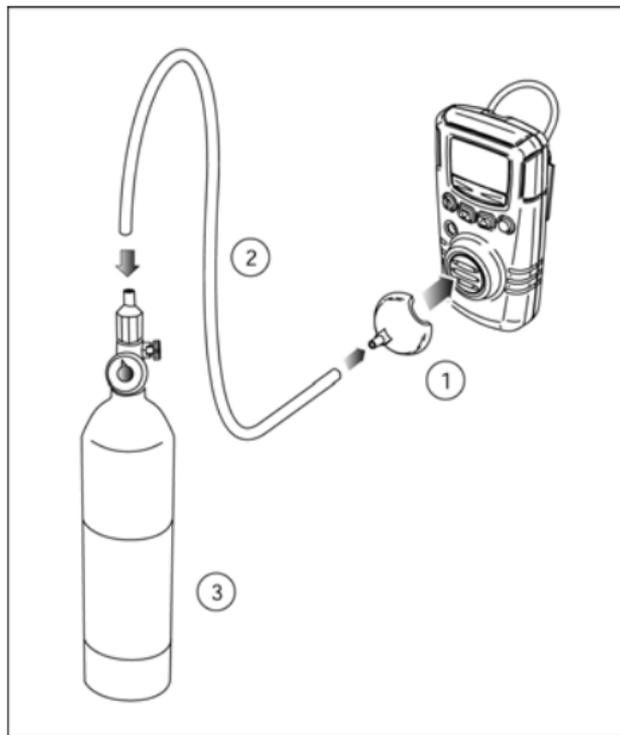
Procedure	Display	Procedure	Display
1. In a clean atmosphere, press  and  simultaneously and hold for 5 seconds. The detector beeps four times. The detector then beeps once more signifying that calibration has started.		5. When the display flashes the gas cylinder, connect the calibration bottle and apply gas at a flow rate of 500 to 1000 ml/min. (refer to the next page). The detector beeps three times at the end of the span stage. Remove the calibration gas.	
2. The display flashes AUTO-ZERO while the detector automatically zeroes the sensor. The detector beeps twice at the end of the auto-zero stage.		6. Press  or  to change the next calibration due date. Press  to save.	
3. If the detector is pass code protected, PASS flashes on the display. The correct pass code must be entered before proceeding to set span.		7. Press  to save the current alarm setpoint. Press  or  to change the alarm setpoint and press  to save the new value. The detector beeps and vibrates four times at the end of calibration.	
4. The display flashes the current calibration gas setting. You can press  to accept the current setting, or you can press  or  to change the setting and press  to confirm your new selection.		<p> Warning</p> <p>For correct flow and span rates, refer to your user manual.</p>	

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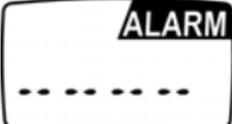
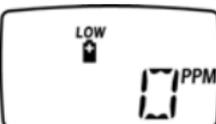
Attach the Gas Cylinder to the Detector

Item	Description
1	Test cap
2	Hose
3	Regulator and gas cylinder



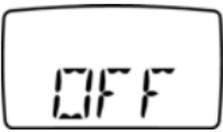
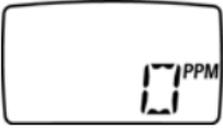
Alarms

The following table lists the numerous alarms of the detector.

Alarm	Display	Alarm	Display
Low Alarm <ul style="list-style-type: none"> • Slow modulating tone and flash • ALARM flashes • Slow vibrations 		TWA Alarm <ul style="list-style-type: none"> • Slow modulating tone and flash • ALARM flashes • Slow vibrations 	
High Alarm <ul style="list-style-type: none"> • Fast modulating tone and flash • ALARM flashes • Fast vibrations 		STEL Alarm <ul style="list-style-type: none"> • Fast modulating tone and flash • ALARM flashes • Fast vibrations 	
Sensor Alarm <ul style="list-style-type: none"> • Slow modulating tone and flash • ALARM flashes • Slow vibrations 		Low Battery Alarm <ul style="list-style-type: none"> • 1 beep and flash every 5 seconds and 1 quick vibration every minute (confidence beep disabled) • No beeps, flashes, or vibrations (confidence beep enabled) 	

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Alarm	Display	Alarm	Display
Automatic Shutdown Alarm (Low battery) <ul style="list-style-type: none">• 8 beeps, flashes, and vibrations• LOW  displays		Automatic Shutdown Alarm (Calibration past) <ul style="list-style-type: none">• 8 beeps, flashes, and vibrations	
After Automatic Shutdown (Low battery) <ul style="list-style-type: none">• No modulating tone• No flash or vibration•  displays for a short time		Confidence Beep <ul style="list-style-type: none">• 1 beep every 5 seconds• 1 quick vibration per minute	

Note

During an alarm condition, the detector activates the backlight and the display shows the current ambient gas reading.

The high alarm and STEL alarm have the same priority. A high alarm and/or STEL alarm override a low alarm and/or TWA alarm.

The vibrator alarm is disabled at -20°C.

User Options Menu

To access the user options menu, press and hold  and  simultaneously until the display reads **OPTN**.

To scroll through the options, press  or . Press  to select the option. The following are the available user options:

1. **EXIT:** Exits the user options menu.
2. **CLCK:** Adjust the date and time of the detector.
3. **PASS:** Enable or disable pass code protection.
4. **STLH:** Enable or disable stealth mode. (The vibrator alarm is disabled at -20°C.)
5. **BKLT:** Enable or disable the automatic backlight function. (When stealth mode is enabled, this option is not available.)
6. **LTCH:** Enable or disable the latching alarm function.
7. **ACAL:** Enable or disable automatic oxygen calibration at startup. (Only available in the GasAlert Extreme oxygen detector.)
8. **PAST:** Enable or disable automatic shutdown if calibration is past due (at startup).
9. **PORT, ESPA, DEUT, FRAN, or ENGL:** Enables the display's language in the user's choice of Portuguese, Spanish, German, French, or English. (Only applicable to detectors with the multi-language feature.)
10. **RATE:** Adjust the datalogger sampling rate. (Only applicable to detectors with the datalogger option.)
11. **SEND:** Transfers the datalogging/event logging information from the detector to the PC. (Only applicable to detectors with the datalogger option.)
Information can be sent in the following three ways:
 - EVNT:** Sends all of the event logs.
 - LAST:** Sends all of the datalogs since the last time they were downloaded.
 - ALL:** Sends all of the datalogs saved on the detector.

Maintenance

To keep the detector in good operating condition, perform the following basic maintenance as required:

- Calibrate, test, and inspect the detector at regular intervals.
- Keep an operations log of all maintenance, calibrations, and alarm events.
- Clean the exterior with a soft damp cloth. Do not use solvents, soaps, or polishes.
- Do not immerse the detector in liquids.

Replacing the Battery or Sensor

Warning

To avoid possible injury:

Replace the battery as soon as the detector emits a low battery alarm.

Use only the Energizer 1CR2 battery.

Use only the sensor specifically designed for your GasAlert Extreme model. Otherwise, the detector will not monitor the target gas.

Note

When you remove the battery from the detector, the clock will revert back to its default value.

To preserve the life of the battery, turn it off when you are not using it.

The following figure and table illustrate how to replace the battery or sensor. The detector must be turned off before you replace the battery or sensor. Use a Phillips head screwdriver to loosen and tighten any screws.

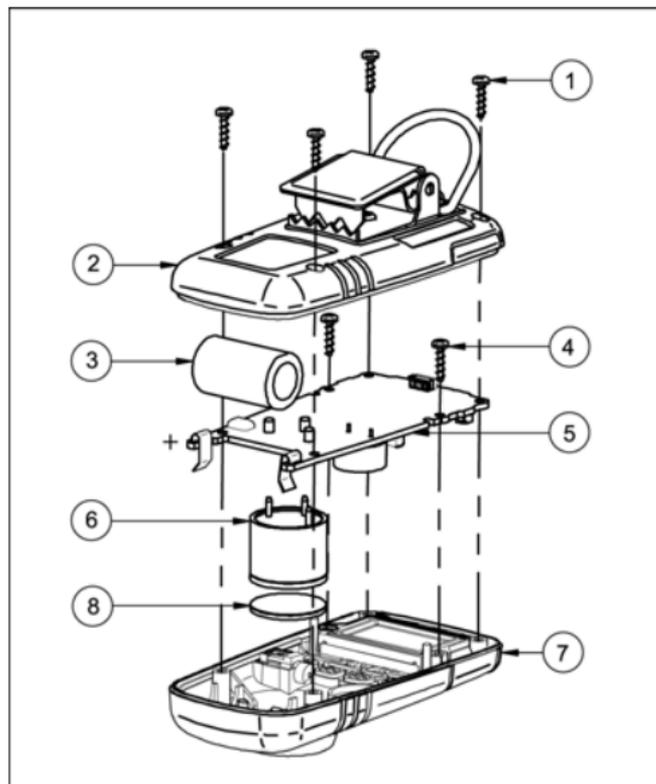
Do not use excessive force when removing or inserting the sensor or the sensor can be damaged. Gently rocking the sensor back and forth can help free a tightly held sensor.

When placing the sensor screen back, ensure that the shiny side is facing away from the sensor.

After replacing a sensor or battery, ensure that the detector's back screws are torque to 3-4 in-lbs in a crisscross pattern to ensure a proper environment seal.

Internal Parts of the GasAlert Extreme

Item	Description
1	Detector back screws
2	Detector back
3	Battery
4	Main board screws
5	Main board
6	Sensor
7	Detector front
8	Sensor screen



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Specifications

Operating temperature:

H₂S, SO₂, HCN: -40°C to +50°C (-40°F to +122°F)

CO: -30°C to +50°C (-22°F to +122°F)

NH₃ (high range): -20°C to +40°C (-4°F to +104°F)

Other gases: -20°C to +50°C (-4°F to +122°F)

Operating humidity:

CO, H₂S, SO₂, Cl₂, HCN, NO₂, NH₃, PH₃, ETO, NO, O₃:

15% to 90% relative humidity (non-condensing)

Cl₂: 10% to 95% relative humidity (non-condensing)

ClO₂: 15% to 95% relative humidity (non-condensing)

O₂: 0% to 99% relative humidity (non-condensing)

Detector ranges:

GasAlert Extreme O₂: 0-30.0% vol (0.1% vol increments)

GasAlert Extreme CO: 0-1000 ppm (1 ppm increments)

GasAlert Extreme CO: (low H₂): 0-1000 ppm (1 ppm increments)

GasAlert Extreme H₂S: 0-100 ppm (1 ppm increments)

GasAlert Extreme H₂S (high range): 0-500 ppm

(1 ppm increments)

GasAlert Extreme H₂S (low methanol): 0-100 ppm

(1 ppm increments)

GasAlert Extreme PH₃: 0-5.0 ppm (0.1 ppm increments)

GasAlert Extreme SO₂: 0-100.0 ppm (0.1 ppm increments)

GasAlert Extreme Cl₂: 0-50.0 ppm (0.1 ppm increments)

GasAlert Extreme NH₃: 0-100 ppm (1 ppm increments)

GasAlert Extreme NH₃ (high range): 0-400 ppm
(1 ppm increments)

GasAlert Extreme NO₂: 0-100.0 ppm (0.1 ppm increments)

GasAlert Extreme HCN: 0-30.0 ppm (0.1 ppm increments)

GasAlert Extreme ETO: 0-100.0 ppm (0.1 ppm increments)

GasAlert Extreme ClO₂: 0-1 ppm (0.01 ppm increments)

GasAlert Extreme O₃: 0-1 ppm (0.01 ppm increments)

GasAlert Extreme NO: 0-250 ppm (1 ppm increments)

Sensor type: Plug-in electrochemical cells

Calibration: Auto zero, set span, and span sensor

Alarm conditions: TWA alarm, STEL alarm, low alarm, high alarm, sensor alarm, low battery alarm, confidence beep, and automatic shutdown alarm.

Audible alarm: 95 dB at 1 ft. (0.3 m) typical

Visual alarm: Red light-emitting diode (LED)

Display: Alpha-numeric liquid crystal display (LCD)

Backlight: Automatically activates for 3 seconds whenever there is insufficient light to view the display (unless disabled in the user options) and during alarm conditions. Any pushbutton reactivates the backlight for 6 seconds.

Self-test: Initiated at activation

Battery test: Every 0.5-second

Battery: 3 V lithium Energizer 1CR2-series battery

Intrinsic safety:

Classified by UL to both U.S. and Canadian Standards as intrinsically safe for Class I, Division 1, Group A, B, C, D
European Explosives Protection EEx ia IIC

CE 0539  II 1 G DEMKO 04 ATEX 03 36363

IECEX

ABS Type Approved: VA-348-169-X

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and ICES-003 Canadian EMI requirements. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



D5562/4 English

iERP: 118341

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