

BW TECHNOLOGIES BY HONEYWELL

GasAlertClip Extreme

2 or 3 Year Gas Detector

Instruction Sheet

Introduction

The GasAlertClip Extreme gas detector (“the detector”) is a personal safety device that warns when hazardous gas exceeds factory set alarm setpoints. The detector stores and transmits gas alarm event data. It is your responsibility to respond properly to the alarms.

Gas Detected	Unit of Measure
Oxygen (O ₂)	Percent by volume (%)
Carbon monoxide (CO)	Parts per million (ppm)
Hydrogen sulfide (H ₂ S)	Parts per million (ppm)
Sulfur dioxide (SO ₂)	Parts per million (ppm)

⚠ Safety Information - Read First

Warning: Substitution of components may impair Intrinsic Safety.

Warning: Bump test the O₂ detector before each day’s use to confirm its ability to respond to gas by exposing the detector to a gas concentration that exceeds the alarm setpoints. Manually verify that the audible and visual alarms are activated.

Warning: To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

- ⇒ Do not activate the detector after the date on the package.
- ⇒ This product is a gas detector, not a measurement device.
- ⇒ Perform a self-test each day prior to use.
- ⇒ Ensure the sensor grill is free of dirt, debris, and is not obstructed.
- ⇒ Calibrate and bump test the detector in an ordinary location.

D2139/7 [English]
iERP: 124661

© BW Technologies 2006, all rights reserved.

⚠ Safety Information - Read First

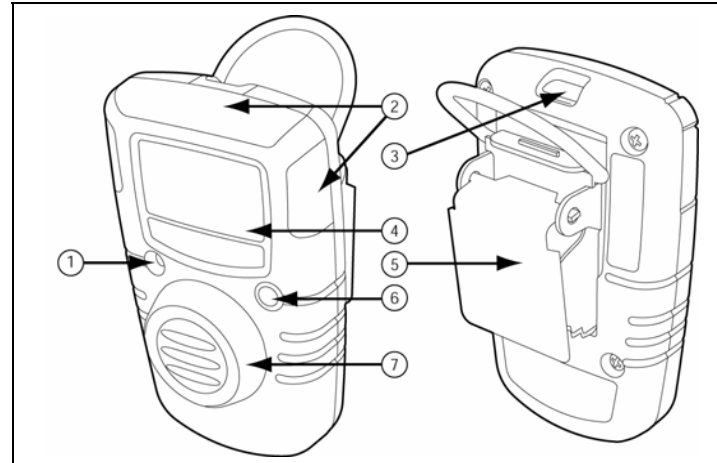
- ⇒ Periodically test the response of the sensor to gas by exposing the detector to a target gas concentration that exceeds the low alarm setpoint. Manually verify that the audible and visual alarms are activated.
- ⇒ Periodically calibrate the GasAlertClip Extreme O₂.



Note:

This instrument contains a lithium battery. Do not mix with the solid waste stream. Spent batteries should be disposed of by a qualified recycler or hazardous materials handler.

Parts of the GasAlertClip Extreme



1	Audible alarm
2	Visual alarm
3	Infrared download port
4	Liquid crystal display (LCD)
5	Alligator clip
6	Start/test button
7	Sensor and sensor grill

Display Elements

1	Self-test status
2	High and low alarm setpoints
3	Data transmission
4	Maximum exposure in alarm
5	Gas type
2 / 6	Alarm condition
7 / 8	Detector life-remaining indicators
4 / 8	Months/hours/days since last maximum exposure

Pushbutton

Pushbutton	Description
○	<ul style="list-style-type: none"> • To activate the detector, press and hold ○ for 5 seconds. • Press ○ within 24 hours of a gas alarm to view the maximum gas exposure. • When Test displays, press and hold ○ for approximately 1 second to activate the self-test. • To calibrate the O₂ detector, press and hold ○ for approximately 3 seconds. • To display the gas alarm setpoints, press ○. • To transmit the data, press ○ when Prn and display.

Activating the Detector

Press and hold  for 5 seconds.

Note: Once activated the detector cannot be deactivated, except after a battery life-ending alarm. Refer to [Safety Shutdown Mode](#).

Performing a Self Test


Note: The self-test must be performed in an atmosphere that is free of hazardous gas.


After a self-test is performed, wait 30 seconds before using to ensure the detector accurately detects gas.

The self-test is activated prior to any other function. Prior to each day's use, a self-test of the detector must be performed.

When **Test** displays on the LCD, a self-test is required.



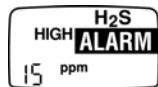
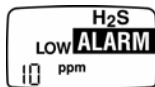
When the self-test is performed and passes,  displays to confirm the tests are successful.


To perform a self-test, press and hold  for approximately 1 second. to initiate the self-test. Confirm that the following tests are performed:

1. The detector emits one beep, one flash, and one vibration.
2. All LCD elements display.



3. **Test** flashes while the sensor integrity and battery life are tested.
4. The low and high alarm setpoints display.




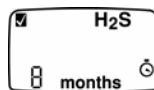
5. If an alarm has occurred in the last 24 hours, the LCD displays the maximum gas exposure value and the hours that have lapsed since the exposure.
6. **Prn** and  flash.

*Note: If a self-test is activated without **Test** being displayed, steps #1-3 are bypassed.*

Self-Test Pass

When the self-test is successful, the detector emits a short beep and a single vibration.

 then displays to verify that the detector passed the self-test.



Twenty hours after performing the self-test, **Test** displays again to indicate that a self-test is required.

Self-Test Fail

If the self-test fails, the detector emits five short beeps and flashes before displaying a blank screen. The LCD then returns to the normal operating screen and again displays **Test**.

Repeat the self-test.

Note: If the self-test fails three consecutive times, the LCD displays a blank screen and the detector deactivates. Refer to [Safety Shutdown Mode](#).


Automatic Battery Test

The battery is automatically tested every 2 hours. If the battery test fails, another automatic test is initiated 30 minutes later.


Note: After five consecutive battery test failures, the LCD displays a blank screen and the detector deactivates. Refer to [Safety Shutdown Mode](#).

Detector Life-Remaining Clock

The detector life-remaining clock indicates how much longer the detector will operate. The LCD displays the countdown value of the remaining months, days, and then hours.

The detector continues to operate for a maximum of 8 hours after the detector life-ending alarm initiates. Press  to deactivate the detector. For more information, refer to [Alarms](#).

Safety Shutdown Mode

The LCD displays a blank screen when initiating safety shutdown mode. The detector beeps, flashes, and vibrates rapidly (twice per second) until the battery loses power. To deactivate the detector before the battery loses power, press . Contact [BW Technologies by Honeywell](#).

The detector initiates safety shutdown mode if the

- self-test fails three consecutive times,
- automatic battery test fails five consecutive times, or
- detector has not been manually deactivated within 8 hours of initiating the detector life-ending alarm.


Gas Alarm Setpoints

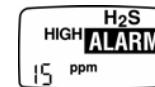
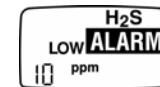
The following is a list of the factory alarm setpoints.

Model	Low Alarm Setpoint	High Alarm Setpoint
GasAlertClip Extreme O ₂	19.5%	23.5%
GasAlertClip Extreme CO	35 ppm	200 ppm
GasAlertClip Extreme H ₂ S	10 ppm	15 ppm
GasAlertClip Extreme SO ₂	5 ppm	10 ppm

Note: Detector may be configured with customer specified alarm setpoints.




Displaying the Gas Alarm Setpoints

Press  to display the alarm setpoints.



Alarm setpoints are factory configured and cannot be modified.

Alarms

Display	Audible Alarm	Visual Alarm	Vibration Alarm
Low Gas Alarm 	One slow beep every second	One slow flash every second	One slow vibration every second
High Gas Alarm 	Two fast beeps every second	Two fast flashes every second	Two fast vibrations every second
Life-Ending Alarm 	Eight slow beeps per minute	Eight slow flashes per minute	Eight slow vibrations per minute

Note: When the gas level returns to the acceptable range, the gas alarm stops.

The life of the battery decreases rapidly when in alarm conditions.


*The battery life-ending alarm occurs when the battery life-remaining clock displays **0 hours**. The detector will continue to operate for 8 hours before automatically deactivating.*

Maximum Gas Exposure

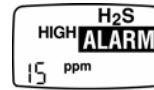
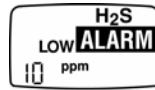
The detector records the maximum gas exposure that triggers an alarm condition and begins calculating the number of hours from when the maximum exposure occurred.

For each new exposure greater than the current maximum exposure, the detector resets the maximum gas exposure to the new level and resets the **hours to 0**. After 24 hours of gas readings in the acceptable range, the detector resets both values to **0**.

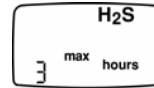
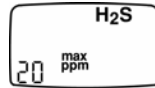
Viewing the Maximum Gas Exposure

Press  within 24 hours of receiving a gas alarm. The LCD displays the following:

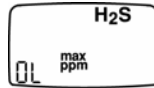
The low and high alarm setpoints.



If a maximum gas exposure has occurred within the last 24 hours, the maximum gas exposure screens display.



For exposures beyond the detection range, over limit (OL) displays.




Calibrating the Oxygen (O₂) Detector

⚠ Warning

Bump test the O₂ detector before each day's use, to confirm its ability to respond to gas by exposing the detector to a gas concentration that exceeds the alarm setpoints. Manually verify that the audible and visual alarms are activated.

Every 30 days when the O₂ detector is due for calibration, the LCD flashes **CAL** and the detector life-remaining value to indicate that calibration is due.

To calibrate the O₂ detector, complete the following:

1. Calibrate the detector only in a normal atmosphere (20.9% O₂) that is free of hazardous gas.
2. Press and hold  for approximately 3 seconds.
3. The detector emits one beep, one flash, and displays the following screen:



Successful Calibration: The detector emits one vibration and one extended beep to indicate that calibration is successful.

Unsuccessful Calibration: If the detector does not beep or vibrate after a calibration, repeat steps 1 and 2 again. If the second attempt is unsuccessful, contact [BW Technologies by Honeywell](#).

Gas Event Data Transmission

The detector stores the last ten alarm events. The recorded data includes the






- serial number,
- detector life-remaining value (months/days/hours),
- number of self-tests that have been performed,
- total number of events that have occurred,
- event type,
- duration of all events encountered,
- gas type,
- alarm level(s) (ppm or %),
- time elapsed since the alarm occurred (days/hours/minutes), and
- duration of the alarm (minutes/seconds).

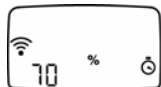
Two options are provided to transmit the gas event data: 1) Transfer data to a PC using an IR DataLink or 2) Print the data using the handheld IR printer.

Transfer Data

Transferring Data to a PC

To transfer the data to a PC, complete the following:

1. Connect the IR DataLink to the PC. Activate the IR DataLink
2. Position the detector and the device 2 in. (5 cm) apart.
3. From the detector, press  to access the transmission screen.
4. **Prn** and  flash on the detector LCD. Within 5 seconds, press  to begin the transmission.
5. While data is being transmitted,  displays and  flashes. A countdown timer displays as a percentage value (**70%**) and indicates how much data remains to be transmitted.




Transferring Data to a Printer

To transfer data using the handheld IR printer, complete the following:

Using the handheld IR printer, complete steps 2-5 as listed for [Transferring Data to a PC](#).

General Specifications

Shelf life	1 year before activation
Weight	76 g (2.7 oz.)
Instrument dimensions	28 x 50 x 81 mm (1.1 x 2.0 x 3.2 in.)
Operating temperature	H ₂ S: -40 to +50°C / -40 to +122°F CO: -30 to +50°C / -22 to +122°F SO ₂ : -30 to +50°C / -22 to +122°F O ₂ : -20 to +50°C / -4 to +122°F Internal vibrating operates to: -15°C / +5°F
Operating humidity	5% to 95% relative humidity (non-condensing)
Audible alarm	≈ 95 dB at 30 cm (1 ft.)
Visual alarm	Flashing, wide-angled alarm lens with quad red LEDs plus alarm LCD readout
Display	Liquid crystal display (LCD)
Sensor type	Electrochemical cells
Detection technique	Instantaneous alarm
Battery	Lithium, non-replaceable
Ratings and certifications	Classified by UL to both U.S. and Canadian Standards as intrinsically safe for Class I, Division 1, Group A, B, C, D and Class I, Zone 0, Group IIC ATEX: CE 0539  II 1 G EEx ia IIC T4 DEMKO 03 ATEX 0321968 IECEX CE: European Conformity ABS Type Approved VA-348-169-X
Ingress protection	IP 66/IP 67
EMI/RFI	Complies with EMC Directives 89/336/EEC

Safety Specifications

Maximum operating life	24 Month detector: 2 years after activation, assuming 3-5 minutes of alarm time/day 36 Month detector: 3 years after activation, assuming 1.5 minutes of alarm time/day
Detection range	H ₂ S: 0 to 100 ppm CO: 0 to 300 ppm O ₂ : 0 to 30% by volume SO ₂ : 0 to 100 ppm
Alarm setpoints	Instant low and instant high
Calibration	H ₂ S, CO, SO ₂ : Not required O ₂ : Self-calibrating

Note: This product has been classified for use in atmospheres not more than 21% v/v O₂.

Event Logging Specifications

Number of stored events	Up to ten events encountered. If more than ten, the older events are replaced by the newer events.
Data transmission method	Via infrared port to thermal printer or via IR DataLink to PC (for ordinary locations only)
Information transmitted	Serial number Life remaining Self-tests performed Total number and duration of all events encountered Last ten events: Maximum exposure, MicroDock II bump check, or O ₂ calibration Data shown for maximum exposures and bump checks: Gas type and alarm level in ppm or % Time elapsed since the alarm occurred in days, hours, and minutes Duration of alarm in minutes and seconds
Data transmission time	45 seconds plus 10 seconds per record

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 the 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.

Warranty

LIMITED WARRANTY & LIMITATION OF LIABILITY

BW Technologies LP (BW) warrants this product to be free from defects in material and workmanship under normal use and service for a period of two or three years (depending upon detector), beginning on the date of activation. This Warranty is valid only if the detector is activated by the date on the package. This warranty extends only to the sale of new and unused products to the original buyer. BW's warranty obligation is limited, at BW's option, to refund of the purchase price, repair, or replacement of a defective product that is returned to a BW authorized service center within the warranty period. In no event shall BW's liability hereunder exceed the purchase price actually paid by the buyer for the Product.

This warranty does not include:

- a) fuses, disposable batteries or the routine replacement of parts due to the normal wear and tear of the product arising from use;
- b) any product which in BW's opinion, has been misused, altered, neglected or damaged by accident or abnormal conditions of operation, handling or use;
- c) any damage or defects attributable to repair of the product by any person other than an authorized dealer, or the installation of unapproved parts on the product; or

The obligations set forth in this warranty are conditional on:

- a) proper storage, installation, calibration, use, maintenance and compliance with the product manual instructions and any other applicable recommendations of BW;
- 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
- c) the right of BW to require that the buyer provide proof of purchase such as the original invoice, bill of sale or packing slip to establish that the product is within the warranty period.

THE BUYER AGREES THAT THIS WARRANTY IS THE BUYER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BW SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, WHETHER ARISING FROM BREACH OF WARRANTY OR BASED ON CONTRACT, TORT OR RELIANCE OR ANY OTHER THEORY.

Since some countries or states do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any provision of this warranty is held invalid or unenforceable by a court of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision.



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



UK Office

Keison Products,

P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.

Tel: +44 (0)330 088 0560

Fax: +44 (0)1245 808399

Email: sales@keison.co.uk

Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.