QUICK REFERENCE GUIDE

2 OR 3 YEAR H,S, CO, O, SO, SINGLE-GAS DETECTOR

50115903-067 EN B2

BW Clip is a portable, single-gas detector manufactured by Honeywell. BW Clip continuously measures the concentration of a specific gas in the ambient environment, and activates an alarm when concentrations exceed alarm setpoints. It is your responsibility to respond appropriately to the alarms.

BW Clip is a member of the GasAlert family of products. It is compatible with IntelliDoX automatic test and calibration stations, as well as Safety Suite Device Configurator software. For more information, visit the product website at www.honeywellanalytics.com

Safety Information: Read First MARNING

- 1. Substitution of components may impair Intrinsic Safety.
- Periodically test the response of the sensor 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.
- 3. Detectors in hibernation mode are not functional.

△ CAUTION

- L. Activate the detector before the activation date on the package.
- 2. This product is a gas detector, not a measurement device.
- 3. Ensure that the sensor grill is free of dirt, debris, and is not obstructed.
- 4. Clean the exterior with a soft, damp cloth.
- 5. Bump test the detector in a normal atmosphere that is free of hazardous gas.
- 6. For optimal performance, periodically zero the sensor in a normal atmosphere (20.9% v/v 0₂) that is free of hazardous gas.

Informations de sécurité – À lire au préalable AVERTISSEMENT

- Le remplacement d'un composant de l'appareil peut compromettre la sécurité intrinsèque du détecteur.
- Testez périodiquement la réponse du capteur en exposant le détecteur à une concentration de gaz supérieure au seuil d'alarme basse. Vérifiez manuellement que les alarmes sonores et visuelles sont activées.
- 3. Détecteurs en mode veille prolongée ne sont pas fonctionnels.

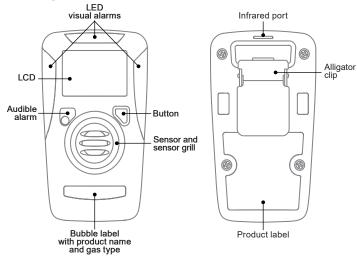
MISE EN GARDE

- 1. Activez le détecteur avant la date d'activation sur l'emballage.
- 2. Ce produit est un détecteur de gaz, pas un dispositif de mesure.
- Veillez à assurer que la grille du capteur est exempt de saleté, les débris, et ne soit pas obstrué.
- 4. Nettoyez l'extérieur de l'appareil à l'aide d'un chiffon doux et humide.
- 5. Veillez à effectuer un test fonctionnel du capteur dans une atmosphère normale qui est exempte de gaz dangereux
- 6. Pour des performances optimales, zéro périodiquement le capteur dans une atmosphère normale $(20,9\% \, \text{v/v} \, \text{O}_2)$ qui est exempte de gaz dangereux.

BW Clip Factory Calibration Certificate

This instrument was factory inspected, tested and calibrated in accordance with the conditions and requirements of our registered Quality System, Operating Standards and Sales Agreements.

Getting Started



LCD and Symbols





Button prompt. When this symbol is displayed, press and hold the button until the symbol disappears.



 ${\rm BW\,Clip}~{\rm O}_2$ models only. Oxygen concentration is measured as percent by volume.



BW Clip H_2S , CO and SO_2 models only. Toxic gas concentration is measured in parts per million.



Low alarm and high alarm. These symbols are displayed when a gas concentration that exceeds alarm setpoints is detected.



Non-compliance warning. This symbol is displayed when a diagnostic or compliance test fails; when the operating life countdown reaches 24 hours or less; and for up to 30 days after operating life expiry. It is also displayed when certain notifications are enabled through Safety Suite Device Configurator via an IntelliDoX station.



Real-time clock. This symbol is displayed when real-time clock is enabled through Safety Suite Device Configurator via an IntelliDoX station.



End of operating life warning. This symbol is displayed when the operating life countdown reaches 24 hours or less.



Peak reading. This symbol is displayed when a maximum gas exposure event has occurred within the past 24 hours.



Bump test reminder. If the detector is configured to display a bump test reminder, this symbol is displayed when a bump test is due. \mathbf{X} indicates a failed test.





BW Clip $\rm O_2$ models only. This symbol is displayed when more than 24 hours have elapsed since the last successful zero procedure was performed. X indicates a failed test.

Operating life remaining in months (MM) or days (DD).



2 OR 3 YEAR H₂S, CO, O₂, SO₂ SINGLE-GAS DETECTOR

Activate a New Detector

- 1. Move to a normal atmosphere (20.9% v/v O_a) that is free of hazardous gas.
- Press and hold the button until a 5 second countdown is displayed, and then continue to hold until the countdown is complete.
- When the countdown is complete, the LCD and LEDs turn on and then turn off. The detector performs an internal diagnostic test.
- 4. When the diagnostic test is successful, the alarm setpoints are displayed and the LEDs flash.
- The sensor stabilization countdown is displayed. During the countdown, the detector vibrates continuously for 20 seconds. The time required to stabilize varies depending on sensor type. When the countdown reaches 0, the LEDs flash and the audible alarm beeps.
- 6. When the type of gas detected and the operating life countdown are displayed, the detector is in normal operating mode.

Normal Operating Mode



When the detector is in normal operating mode, the type of gas detected is permanently displayed. The remaining operating life is displayed until it is disrupted by a button action, gas alarm, or error event.

Operating Life



When the detector is activated for the first time, the operating life countdown is displayed. The countdown displays remaining operating life in months until the countdown reaches 90 days or less before expiry.

90 Days or Less Remaining



When the operating life countdown reaches 90 days or less before expiry, the countdown display changes to days. The countdown displays the remaining operating life in days until the countdown reaches 24 hours or less before expiry.

24 Hours or Less Remaining



When the operating life countdown reaches 24 hours or less before expiry, the countdown display changes to hours, and the EXPIRY! warning and non-compliance symbol are displayed.

End of Operating Life



When the operating life countdown ends, the detector deactivates and detector safety functions are disabled. It is possible to retrieve event logs for a limited time after expiry. The EXPIRY! warning and non-compliance symbol are displayed for up to 30 days after expiry.

Internal Diagnostic Tests

Activated detectors automatically perform one internal diagnostic test every 24 hours. If the internal diagnostic test fails, the diagnostic fail-safe begins.

Diagnostic Fail-Safe

- The EXPIRY! warning and non-compliance symbol are displayed.
- 2. The detector beeps and vibrates.
- 3. The LEDs flash 2 times per second for 15 seconds.
- 4. **OFF** or an error code is displayed. The detector is deactivated.

It is possible to retrieve the event logs for a limited time after expiry. If you are unable to retrieve the event logs, contact Honeywell.

Alarms and Warnings

An alarm is initiated when the sensor is exposed to a gas concentration that exceeds alarm setpoints. The alarm persists until the alarm gas concentration returns to an acceptable range. You can use Safety Suite Device Configurator via an IntelliDoX station to enable the display of the gas concentration reading during an alarm. Battery life decreases rapidly when the detector is in alarm condition.

Low Alarm



Audible: 1 beep per second Visual: 1 flash per second

Vibration: 1 vibration per second

High Alarm



Audible: 2 beeps per second Visual: 2 flashes per second

Vibration: 2 vibrations per second

Over-Limit and Under-Limit Alarms



If the gas concentration is beyond the sensor range, OL (overlimit) or -OL (under-limit) is displayed.

Visual: 2 flashes per second

Audible: 2 beeps per second

Vibration: 2 vibrations per second

Automatic Zero Reminder for O₂ Models



For O₂ models only, the Automatic Zero Reminder is displayed when more than 24 hours have elapsed since the last successful zero procedure was performed.

Peak Readings



The peak readings symbol is displayed when the sensor is exposed to a gas concentration that exceeds the alarm setpoints. It is no longer displayed when more than 24 hours have passed since the last alarm, or when a successful bump test is performed via an IntelliDoX.

Non-compliance Symbol and LED Indicators

The non-compliance warning symbol is displayed when:

- an internal diagnostic test fails;
- a bump test or zero procedure fails;
- a bump test is due, if enabled:
- the sensor is exposed to a gas concentration that exceeds alarm setpoints, if enabled.

The non-compliance warning symbol is no longer displayed when more than 24 hours have passed since the last alarm, or when a successful bump test is performed via an IntelliDoX station. The non-compliance warning symbol is permanently displayed when the service-life countdown reaches 24 hours or less before expiry, and for up to 30 days after expiry.

When Non-compliance after gas exposure is enabled through Safety Suite Device Configurator via an IntelliDoX station, the LEDs flash in an alternating pattern when the non-compliance warning symbol is displayed. When the symbol is first displayed, the top LEDs flash. After 30 seconds, the side LEDs flash. After 30 seconds, the pattern repeats until the non-compliance warning symbol is no longer displayed.

NOTE: When the detector is bump tested via an IntelliDoX station, an abnormal test result may occur if non-compliance LEDs are flashing. To suspend the flashing for up to 10 minutes, press and release the button. When the flashing stops, insert the detector and perform the test. If the bump test fails, the LEDs resume flashing.

Recall Events and Settings

Note: Alarm setpoints can be manually setup via an IntelliDoX device.

When the detector is in normal operating mode, press the button at any time to scroll through events and settings that are not empty or disabled through Safety Suite Device Configurator via an IntelliDoX station. Events and settings are displayed in this order:

- 1. Peak Reading, if available, and when a maximum gas exposure event has occurred within the past 24 hours.
- 2. Time of Peak Reading, if Real-time Clock display is enabled.
- 3. Low Alarm Setpoint
- 4. High Alarm Setpoint
- 5. Real-time Clock, if enabled.
- 6. Firmware Version
- Next Bump Due, if enabled.
- 8. Hibernation, for 2-year H₂S and CO hibernation models only.

While an event or setting is displayed, press the button to scroll to the next available event or setting. If you do not press the button, or if you have reached the last available event or setting, the detector returns to normal operation.



2 OR 3 YEAR H₂S, CO, O₂, SO₂ SINGLE-GAS DETECTOR

Zero the Sensor

Over time and through use, the sensor baseline at zero exposure may drift from the manufacturer's baseline. For optimal performance of $\rm O_2$ models, Honeywell recommends that you zero the $\rm O_2$ sensor once every 24 hours or when the **Automatic Zero Reminder** is displayed. For all other models, Honeywell recommends that you zero the sensor periodically.

Zero Procedure



PRSS

- 1. Move to a normal atmosphere (20.9% v/v $\rm O_2$) that is free of hazardous gas.
- Press and hold the button until a 5 second countdown is displayed, and then continue to hold until the countdown is complete.
- 3. When the countdown is complete, the **Zero** procedure begins and **ZErO** is displayed.
- 4. When **Zero** is successful, **PASS** is displayed, and then the detector returns to normal operation.



5. If Zero is not successful, the non-compliance LED flashes. FAIL and the non-compliance warning symbol are displayed. Press the button to acknowledge the result and return to normal operation. The non-compliance warning symbol is displayed and the non-compliance LED flashes. Perform the Zero procedure again. If the procedure fails again, contact Honeywell.

Bump Tests

When the detector is configured to display a bump test reminder, the bump test symbol is displayed when a bump test is due. For best results, bump test the detector via an IntelliDoX station. Bump tests performed via an IntelliDoX station are logged as bump tests. Manual bump tests are logged as unsafe gas concentrations.

Event Logs

The detector stores the last 35 events that occurred, including peak readings, bump tests and auto zeros. Each record contains:

- detector serial number, sensor type and life-remaining;
- · total number of events that have occurred;
- · event type and duration;
- alarm level(s) in ppm or %;
- time elapsed since the alarm occurred in days/hours/minutes;
- duration of the alarm (minutes/seconds).

Use Safety Suite Device Configurator via an IntelliDoX station to transfer event logs from the detector to a computer. When logs are transferred via an IntelliDoX station, the most recent 35 events are transferred.

Optional Settings

Use Safety Suite Device Configurator via an IntelliDoX station to enable the following optional settings for BW Clip detectors.

Display Gas Reading During Alarm



When **Display gas reading during alarm** is enabled, the gas concentration is displayed when a gas alarm event is detected. The gas concentration is displayed until the alarm event ends.

Non-compliance After Gas Exposure

When **Non-compliance after gas exposure** is enabled, the LEDs flash in an alternating pattern when the sensor is exposed to a gas concentration that exceeds alarm setpoints. When the gas exposure is detected, the top LEDs flash. After 30 seconds, the side LEDs flash. After 30 seconds, the pattern repeats until more than 24 hours have passed since the last alarm, or when a successful bump test is performed via an IntelliDoX station.

Real-time Clock Display



When Real-time Clock Display is enabled, you can display the current time by pressing the button to Recall Events and Settings, and then continuing to press the button until the time is displayed.

Honeywell



Time may be displayed in 12-hour or 24-hour clock format.

Hibernation

Hibernation is a factory installed feature that is available for 24-month $\rm H_2S$ and CO detectors. When **Hibernation** is activated, the operating life countdown is suspended. Use **Hibernation** to deactivate the detector for 7 days or longer, up to a maximum of 12 months. When **Hibernation** is activated, all detector safety functions are disabled.

Activate Hibernation via BW Clip Hibernation Case



X 16

- Have ready a BW Clip Hibernation Case. To purchase a Case, contact Honeywell or an authorized distributor.
- 2. Move to a normal atmosphere $(20.9\% \text{ v/v O}_2)$ that is free of hazardous gas.
- 3. Verify that the detector is in normal operating mode.
- 4. Press the button to **Recall Events and Settings**, and then continue to press the button until **Hib** is displayed.
- While Hib is displayed, press the button until a 5 second countdown is displayed. When the countdown is complete, the 20-second Hibernation counter is displayed.
- While the Hibernation counter is displayed, place the detector into a BW
 Clip Hibernation Case and then close the case firmly. The detector enters
 Hibernation mode. All detector safety functions are disabled.
- 7. To reactivate the detector, open the case.

Activate Hibernation through Safety Suite Device Configurator via IntelliDoX

- Use Safety Suite Device Configurator to activate **Hibernation on Insertion** via an IntelliDoX station, and then insert the detector in the configured station. The detector event logs are retrieved, and the detector enters **Hibernation** mode. All safety functions are disabled, and the detector may be removed from the IntelliDoX station.
- To reactivate the detector, press and hold the button until a 5 second countdown is displayed, and then continue to hold until the LCD and LEDs turn on and off. The detector performs a self-diagnostic test. When the test is successful, the type of gas detected and the remaining operating life are displayed. The detector is in normal operating mode.
- 3. For more information, refer to the operator manuals for the IntelliDoX station and Safety Suite Device Configurator software.

About this Publication

This publication is an operator guide for BW Clip portable single-gas detectors manufactured by Honeywell. It is intended for use with the following models:

- 24- and 36- month $\rm H_2S$ and CO Detectors
- 24- month O₂ detector
- 24- month SO₂ detector

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Contact Us

Corporate Headquarters

Honeywell Suite 110 4411-6 Street SE Calgary Alberta Canada T2G 4E8 Toll-free: 1-800-663-4164



This symbol indicates that the product must not be disposed of as general industrial or domestic waste. This product should be disposed of through suitable WEEE disposal facilities. For more information about disposal of this product, contact your local authority, distributor or the manufacturer.

2 OR 3 YEAR H₂S, CO, O₂, SO₂ SINGLE-GAS DETECTOR

Americas

Honeywell 405 Barclay Blvd.

Lincolnshire, IL USA 60069 Toll-free: 1-888-749-8878

Furone

Honeywell

Javastrasse 2

8604 Hegnau Switzerland

Toll-free: 00800-333-222-44

Web

www.honeywellanalytics.com info@gasmonitors.com

Warranty Registration

www.honeywellanalytics.com/support/product-registration

Maximum Operating Life

24-month Detector

2 years after activation, assuming 2 minutes of alarm time per day.

Note: 24-month H_2S and CO detectors that use hibernation may extend the service period of the detector up to an additional year. The service life will end once the detector reaches 24 months of actual operation. Hibernation provides a maximum service life of 36 months.

36-month Detector

3 years after activation, assuming 1 minute of alarm time per day.

Detection Range

H₂S 0 to 100 ppm

CO 0 to 300 ppm

O, O to 25% by volume

SO₂ 0 to 100 ppm

Factory Alarm Setpoints

	Low Alarm	High Alarn
H ₋ S	10 ppm	15 ppm

CO 35 ppm 200 ppm O₂ 19.5% vol 23.5% vol SO₂ 5 ppm 10 ppm

Use Safety Suite Device Configurator via an IntelliDoX station to adjust alarm setpoints. For more information, refer to the operator manuals for Safety Suite Device Configurator software version 4.0 and the IntelliDoX automatic test and calibration station.

Ratings and Certifications

The BW Clip is in conformity with the following standards:

UL 913 8th Edition

UL 60079-0:2013,

UL 60079-11:2013

CSA C22.2 No. 157-92:2012,

CSA C22.2 No. 60079-0:2011

CSA C22.2 No. 60079-11:2014

IEC EN 60079-0:2018

EN 60079-11:2012

IEC 60079-0:2017

IEC 60079-11:2011

IEC 60079-26:2014

ABNT NBR IEC 60079-0:2008 ABNT NBR IEC 60079-11:2009

UL

Classified by UL to both US and Canadian Standards as intrinsically safe for Class I, Division 1, Group A, B, C, D and Class I, Zone O, Group IIC. (US only).

ATEX

CE 0539 II 1G

Ex ia IIC T4 Ga IP66/67 DEMKO 14 ATEX 1356

CE

European Conformity

EC Declaration of Conformity

www.honeywellanalytics.com

IECEx

Ex ia IIC T4 Ga IP66/67 IECEx UL 14.0063

INMETRO

Ex ia IIC T4 Ga DNV 15.0024

KTL

15-KA4BO-03061

Specifications

Shelf Life

H₂S One (1) year before activation

CO One (1) year before activation

0, Six (6) months before activation

SO, One (1) year before activation

Instrument Weight alligator clip included

92 grams (3.2 ounces)

Instrument Dimensions alligator clip included

 $41 \times 50 \times 87$ millimeters $(1.6 \times 2.0 \times 3.4 \text{ inches})$

Operating Temperatures

H_oS -40° to +50°C (-40° to +122°F)

CO -30° to +50°C (-22° to +122°F)

0, -20° to +50°C (-4° to +122°F)

SO₂ -30° to +50°C (-22° to +122°F)

Internal Vibrating

Operates to -10°C (+14°F)

Intrinsic Safety Temperature Range

-40°C to +50°C (-40°F to +122°F)

Operating Humidity

5% to 95% relative humidity (non-condensing)

Audible Alarm

≈ 95 dB at 10 cm (3.9 in)

Visual Alarm

Flashing, wide-angled alarm lens with red LEDs plus alarm LCD readout

Display

Liquid crystal display (LCD)

Sensor Type

Electrochemical cells

Battery

Lithium, non-replaceable

Ingress Protection

IP 66/67

Alarm Setpoints

Instant low and instant high

Calibration

 ${\rm H_2S}$ not required

co not required so, not required

O₂ Perform the **Zero** procedure once every 24 hours or when the **Automatic Zero Reminder** is displayed.

Intended Use

This product is classified for use in hazardous atmospheres that are not more than $21\%\,\text{V/v}\,\text{O}_2$

Recycling

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

△CAUTION

Products may contain materials that are regulated for transportation under domestic and international dangerous goods regulations. Return product in compliance with appropriate dangerous goods regulations. Contact freight carrier for further instructions.

Limited Warranty and Limitation of Liability

Honeywell 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. 24-month $\rm H_2S$ and CO detectors are covered for up to an additional 12 months when hibernation is used, limited by a total of 24 months of detector operation. 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.

The obligation of the warranty from Honeywell is limited, at the option of Honeywell, to refund of the purchase price, repair, or replacement of a defective product that is returned to a Honeywell authorized service center within the warranty period. In no event shall the liability of Honeywell hereunder exceed the purchase price actually paid by the buyer for the Product.

This warranty does not include:

- fuses, disposable batteries or the routine replacement of parts due to the normal wear and tear of the product arising from use;
- any product which in the opinion of Honeywell, has been misused, altered, neglected, or damaged by accident or abnormal conditions of operation, handling or use; or
- 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.

The obligations set forth in this warranty are conditional on:

Honeywell

- proper storage, installation, calibration, use, maintenance and compliance with the product manual instructions and any other applicable recommendations of Honeywell;
- the buyer promptly notifying Honeywell of any defect and, if required, promptly making the product available for correction. No goods shall be returned to Honeywell until receipt by the buyer of shipping instructions from Honeywell;
- 3) the right of Honeywell 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
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A PARTICULAR PURPOSE. HONEYWELL
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CONSEQUENTIAL DAMAGES OR LOSSES,
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BASED ON CONTRACT, TORT OR RELIANCE
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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 provisions.

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¹ https://www.honeywellanalytics.com/~/media/honey-well-analytics/products/bw-clip/documents/certificates/korea-certification_bw-clip-15ka4bo0306