

blacklinesafety

G8

Technical User Manual

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WARNINGS

-  **WARNING:** High off-scale readings may indicate an explosive concentration.
-  **WARNING:** Calibrations must only be performed in areas free of flammable gases.
-  **WARNING:** To ensure optimum device connectivity, do not cover G8 with clothing.
-  **WARNING:** Do NOT power off G8 if the blue LiveResponse light is on.
-  **WARNING:** Only perform bump tests in a known clean environment.
-  **WARNING:** G8 does NOT monitor for safety during the firmware update installation process.

1 G8 OVERVIEW

G8 is Blackline Safety's portable standard, single-gas, or multi-gas detector.

When equipped with a gas cartridge, G8 continuously measures gas concentrations in the ambient environment and activates notifications when concentrations exceed setpoints, allowing operators to respond quickly and safely to changes in their environment.

G8 has integrated 4G cellular network connectivity to communicate with Blackline Live, and is available anywhere in the world.

1.1 WHAT'S IN THE BOX

G8 comes with:

- Pre-installed cartridge (standard, single-gas, or multi-gas)
- A TagAssign NFC tag
- Charging system:
 - Charging cable
 - USB power adapter
- Quick Start Card
- Compliance and intrinsic safety information

If you have a single-gas or multi-gas cartridge, you will also receive:

- Single-gas or multi-gas calibration cap
- Calibration gas tubing

1.2 HARDWARE DETAILS

Front



Back



1.2.1 LIGHT AND SOUND PATTERNS

Event/Mode	Lights Patterns	Sound Patterns
Operation		
Device Off	None	None
Firmware Updates		
Power On	Blinking green connectivity light when trying to connect to Blackline Live. Solid green connectivity light when connected to Blackline Live.	None
Start-up Sequence	Alternating flashing red and yellow lights	Single beep
Low Battery	Alternating flashing yellow lights	Repeating beep pattern
Shutdown Sequence	Two flashes of yellow lights	Single beep
Compliance and Modes		
Calibrations	Simultaneous double flashing yellow lights	Double beep when starting and completing a calibration
Normal Mode	Solid green connectivity light, when connected to Blackline Live	None
Secondary and Pump Modes	Simultaneous double flashing yellow lights every 30 seconds	Double beep when entering and exiting a secondary mode
Low-urgency Notifications		
Potential Fall Detected	Rapid alternating flashing yellow lights	Repeating beep pattern
Potential No-motion Detected		
Check-in Request		
Incoming Message		
Emergency Call		
Low Gas		
Pump Blocked		
AlertLink		
Sensor Error	Rapid alternating flashing yellow lights	Repeating beep pattern
Sensor Under Limit		
Device Self Test (Memory and Flash) Error		
High-urgency Notifications		
Fall Detected	Rapid alternating flashing red lights	Repeating beep pattern
No-motion Detected		
Missed Check-in		
High Gas		
Over limit (OL)		
Short term Exposure Limit (STEL)		
SOS alert		

Event/Mode	Lights Patterns	Sound Patterns
Time Weighted Average (TWA)		
LEL > 60%	Rapid alternating flashing red lights	Repeating beep pattern
LEL Over Limit		
Gas Alert Muted	Rapid alternating red lights	None

1.3 BLACKLINE SAFETY SERVICE PLANS

Blackline Safety implementations are tailored to your needs and organization and are based on your expertise, staffing, and business goals.

There are various service plans available to suit your organization's needs. For more information contact your Client Success Manager (CSM).

1.4 BLACKLINE SAFETY SERVICES

1.4.1 BLACKLINE SAFETY MONITORING

Depending on your needs and requirements, various service plan options are available for G8, including 24/7 live safety monitoring by Blackline Safety.

Contact your organization's safety professional for more information regarding the details of your service plan.

For more information, please see [Blackline 24/7 Live Monitoring](#).

1.4.2 BLACKLINE LIVE

Blackline Live monitors your G8 devices and allows you to access reports and, depending on your plan, business analytics insights.

Blackline Live also allows you to create and customize configuration profiles that determine how a device, or a group of devices, operates in the field.

For more information, please see [Blackline Live](#).

1.4.3 BLACKLINE ANALYTICS

If enabled by your service plan, Blackline Analytics allows you to review data collected from your device fleet to make decisions, follow up with your team, and ensure everything is running smoothly. Blackline Analytics provides a variety of pre-defined reports and filters to explore your data.

For more information, please see [Blackline Analytics](#).

1.5 COMMUNICATION INTERVALS

The following table describes the default communication frequency to Blackline Live for G8.

Normal Operation	During a High-urgency Event	After a High-urgency Event
5 min	Immediately (within ~3 seconds)	5 min

NOTE: Events (such as alarms or button presses) are communicated immediately. The 5-minute interval applies only to scheduled location updates during normal operation.

2 G8 CARTRIDGES

2.1 DEVICE COMPARISON

G8 can be customized with one of four cartridge types. Cartridge selections include standard, single-gas, multi-gas diffusion and multi-gas pump cartridges. The following comparison chart summarizes the features of each cartridge.



	Standard	Single	Multi (diffusion)	Multi (pump)
Text messaging	✓	✓	✓	✓
Fall detection	✓	✓	✓	✓
No-motion detection	✓	✓	✓	✓
SOS alert	✓	✓	✓	✓
Check-in timer	✓	✓	✓	✓
Configuration modes		✓	✓	✓
Receive emergency voice calls	✓	✓	✓	✓
Push-to-talk (PTT) enabled	✓	✓	✓	✓
Single gas detection		✓		
Multi-gas detection			✓	✓
Pump enabled				✓
Low-gas notification		✓	✓	✓
Under-limit notification		✓	✓	✓
High-gas notification		✓	✓	✓
STEL notification		✓	✓	✓
TWA notification		✓	✓	✓
Over-limit (OL) notification		✓	✓	✓

2.2 CARTRIDGES AND EXTREME WEATHER

G8 is rated to operate in weather conditions as low as -20°C (-4°F). G8 functions in temperatures colder than this for short periods of time, but Blackline Safety does not recommend letting the device's internal temperature drop below -20°C (-4°F).

For more details, see [Operating Devices in Extreme Weather](#) on the Blackline Support site.

2.3 CARTRIDGES EQUIPPED WITH COMBUSTIBLE GAS (LEL) SENSORS

Molecular Property Spectrometer (LEL-MPS)

The Molecular Property Spectrometer (LEL-MPS) is a solid-state sensor used to detect combustible gases. It classifies gases based on their molecular properties and does not require routine span calibration.

The LEL-MPS sensor is not intended for inert environments. Sensor accuracy decreases significantly below 18% oxygen. Use is not recommended when O₂ levels are under 10%.

NOTE: LEL sensors cannot be disabled in Blackline Live.

LEL-MPS Sensor Automatic Zeroing at Startup

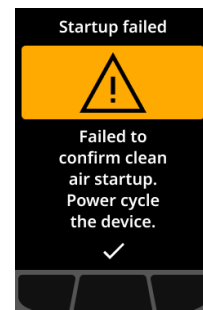
LEL-MPS sensors must be zeroed in clean air to function properly.

All sensors on G8 automatically zero at startup. For LEL-MPS, an optional Clean Air Startup Prompt can be enabled in Blackline Live. Contact your Blackline Live administrator for more information.

- **Enabled:** G8 prompts for confirmation that a zero in clean air has occurred. If not confirmed within 15 seconds, G8 enters a latched alarm state and must be power cycled.
- **Disabled (default):** G8 automatically zeroes without a prompt.

Other sensors on G8 automatically zero at startup and do not display a prompt.

For more on manual zeroing, see section 7.5.



LEL-MPS Sensor Calibration

You can calibrate your LEL-MPS sensor in two ways:

Default calibration — The default calibration process validates and ensures accuracy without adjusting the LEL-MPS sensor's readings. Unlike traditional sensors, this sensor is factory-calibrated for optimal accuracy.

Blackline Safety recommends using the factory calibration for the lifetime of the sensor.

Full calibration — Advanced users can enable span adjustment in Blackline Live to perform a full calibration on the LEL-MPS sensor. This may negatively affect the sensor's ability to accurately detect other combustible gases. Blackline recommends using the factory calibration for the lifetime of the sensor. Contact Blackline Safety [Technical Support](#) before performing a manual calibration.

NOTE: MPS sensors are not affected by electromagnetic interference (EMI) and are resistant to common contaminants that degrade traditional LEL sensors.

Non-Dispersive Infrared (LEL-IR)

The Non-Dispersive Infrared (LEL-IR) sensor detects combustible gases using infrared absorption. It is suitable for use in oxygen-deficient or inert environments.

The LEL-IR sensor:

- Does not detect Hydrogen (H₂) or Acetylene (C₂H₂).
- Is resistant to poisoning, contamination, and electromagnetic interference.
- Must be calibrated in a flammable-free environment using appropriate span gas.

NOTE: LEL-IR sensors are impacted by temperature. For more details, see section 2.2.

2.4 CARTRIDGE MAINTENANCE

2.4.1 CHANGING CARTRIDGES

To change G8's cartridge:

CAUTION: Cartridges should always be replaced with a manual (not electric) screwdriver to avoid damage to the device's plastics.

1. Power off G8.
2. Using a Phillips #1 screwdriver, remove the screws on each side of the device.
3. Pull up on the cartridge.



4. Slide a new cartridge onto G8, ensuring the cartridge clicks into place.
5. Replace the screws into each side of the device.

2.4.2 CARTRIDGE CARE

Gas sensors are susceptible to contamination by a variety of common chemicals, reducing or eliminating their sensitivity.

Take care when using silicones, cleaners, solvents, and lubricants as exposure may permanently damage the sensor. If a device is exposed to a new chemical or compound, it is best practice to bump test and calibrate units to ensure proper sensor function is maintained.

For details on preventing sensor contamination, refer to [Cleaning Devices and Accessories](#) on the Blackline Support site.

2.4.3 CHANGING FILTERS FOR CARTRIDGES

For instructions on how to change filters for cartridges, refer to the following support articles on the Blackline Support site:

- [Replacing Single-gas Diffusion Cartridge Filters](#)
- [Replacing Multi-gas Diffusion Cartridge Filters](#)
- [Changing Pump Cartridge Filters](#)

3 OPERATION

G8 has a high-visibility, color LCD display and push button menu system.

NOTE: This manual describes all the available features for G8. Depending which features your organization has enabled, your screen and menu options may differ. For more information on which features are available to your organization, contact your Blackline Live administrator.

3.1 G8 PUSH BUTTONS



Center button

Press the center button to select or confirm menu options and acknowledge pending high-urgency notifications.

Press and hold to open Quick Access Menu-specific settings.



Left and Right buttons

Press the left or right button to scroll through menus or cycle between quick access menus.

Press and hold both simultaneously to mute low and high-urgency notifications.



SOS Latch

Pull down to call for help and trigger a high-urgency alert to monitoring personnel.



Push-to-talk (PTT) button

Press and hold to send a Push-to-talk message.

The function changes depending on the configuration profile. If PTT isn't enabled, the button may perform other tasks like Silent SOS or Early Check-In.



Side + / Side -

Scroll quickly through menu pages.

Also used to change Quick Access menu settings like PTT options or flashlight timer.



Flashlight button

Press to turn G8's flashlight on or off.

3.2 POWERING ON G8

Powering on G8 initiates the device start-up sequence. During the start-up sequence, G8 automatically completes a self-test of the device's visual and audible functions.

Always power G8 on in a clean, gas-free environment.

To power on G8:

1. Press and hold the center button until the screen lights up. Wait for the green connectivity light to turn solid, indicating a successful connection.
2. The device runs through its startup sequence automatically. When complete, G8 displays the Status screen.

3.2.1 START-UP SEQUENCE

After powering on, G8 performs the following actions automatically:

Self-test

G8 checks its lights, sounds, and vibration to confirm that notifications are functioning correctly.

Clean air prompt (LEL-MPS only)

If the clean-air prompt is enabled in Blackline Live, G8 prompts you to confirm the device is in clean air before zeroing. If not confirmed within 15 seconds, the device enters a latched alarm state.

NOTE: This prompt is disabled by default. When disabled, the device does not zero at startup and requires manual zeroing.

Quick Access Menu access

When start-up is complete, the device displays the Status screen. Use the left and right buttons to scroll between Quick Access menus. Press the center button to select a Quick Access menu.

NOTE: Button behavior may change depending on the active Quick Access menu. For more information, see section 3.3.3.

Pump run at start-up

By default, G8 briefly runs the pump during start-up to confirm operation for any pump cartridge. This check completes automatically and does not require user input.

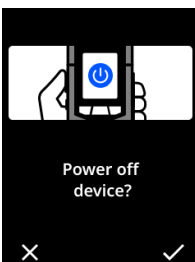
This behavior can be configured for any pump cartridge in Blackline Live, regardless of sensor type.

3.2.2 POWERING OFF G8

Powering off G8 initiates the device shutdown sequence. When the green light is completely off, the device is powered off and not connected to Blackline Live.

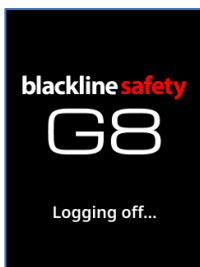
To power off G8:

1. From the Status screen, press the center button. The Main menu opens.
2. Use the up and down arrows to scroll to **Power off** and then press the center button.



G8 displays a message to confirm you want to power off.

If you're in an area with no network coverage, a warning message may display to advise that you do not have connectivity, which may result in a missed check in.



3. Press the right button. G8 powers off.

Hardware Power Off

Press and hold the center and side – buttons to start a countdown timer to power off G8.

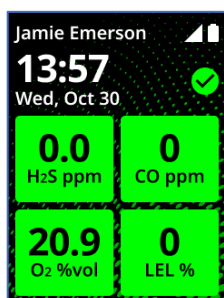


3.3 G8 LCD DISPLAY

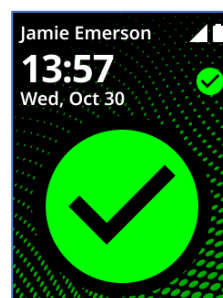
3.3.1 STATUS SCREEN

G8's Status screen shows the current device status through screen color and banner messages. Event notifications are displayed in the banner. If G8 has more than one notification simultaneously active, the banner cycles through active events.

Status Screen (Multi-gas Cartridge)



Status Screen (Standard Cartridge)

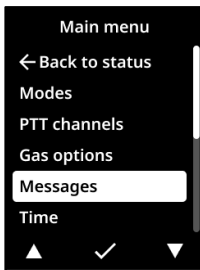


3.3.2 MAIN MENU

The Main menu provides access to the features available on your G8.

The menu items available are based on how your G8 is configured in Blackline Live. For example, PTT options only display if your device has PTT enabled.

To open the Main menu:



1. From the Status screen, press the center button to open the Main menu.

To navigate the Main Menu:

- Use the left and right buttons to scroll through available items.
- Press the center button to select an item.
- Press the Back button to return to the previous screen.
- Use the Side + and Side – buttons to quickly jump between pages when a menu has multiple pages.

3.3.3 QUICK ACCESS MENUS

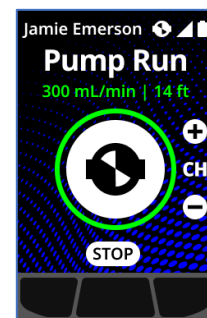
G8 uses Quick Access menus to simplify access to key functions like Push-to-talk, Modes, and Status. The Quick Access menus available depend on how your G8 is configured in Blackline Live. For more information, contact your Blackline Live administrator.

Each Quick Access menu groups related features into a single screen, reducing the need to navigate through multiple menus.

Each Quick Access menu shows options and information related to a specific task. For example, the Modes Quick Access menu may show both active mode and pump status, while the Push-to-talk Quick Access menu includes channel selection and messaging options.

Each Quick Access Menu has the following functionality:

- A large central icon representing the main function
- A white label showing the action mapped to the center button
- Side + / Side – indicators when additional controls are available
- A green ring around the icon if the feature is currently active



To view Quick Access menus:



1. From the Status screen, press the left or right button to scroll through available menus.
2. Press the center button to select the desired Quick Access menu.
3. Hold the center button to open additional menu items or options.

3.4 WEARING G8

G8 monitors you best when clipped to your belt or chest pocket to locate G8 in the breathing zone. G8 is equipped with a spring-loaded metal alligator clip that can be used to secure the device in place.

Blackline offers a portfolio of optional Klick Fast accessories for G8. For more information on G8 wearable accessories, contact Blackline Safety's [Technical Support](#) team.

To attach and fasten G8 in place using the metal alligator clip:

1. At the back of the device, open the metal alligator clip.
2. Place the clip over the top of the fabric edge or belt.
3. Snap the clip closed, testing the attachment to ensure the clip is secure.

⚠ WARNING: To ensure optimum device connectivity, do not cover G8 with clothing.

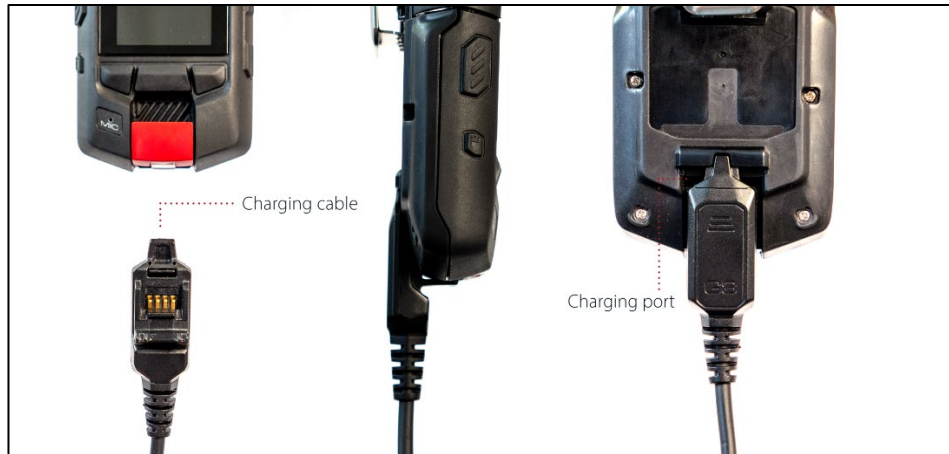
3.5 CHARGING G8

G8 battery life varies depending on device configurations, connectivity, low-urgency and high-urgency notifications, operating temperature, sensor types, and pump use.

Blackline recommends that you fully charge your device after every shift.

To charge G8 using the charging cable and USB power adapter:

1. Connect the charging cable to the USB power adapter, then plug the adapter into an AC power outlet.
2. Insert the top part of the charging cable into the notch at the top part of the G8 charging port.
3. Gently press downwards on the charging cable until it clicks securely into place.



Troubleshooting Tips

If you are having trouble charging your G8, perform the following actions:

- Confirm the power outlet and USB adapter are functional and the cable is properly attached to your G8.
- Confirm that you are not trying to charge your device in adverse temperature conditions. Blackline devices will not charge below 0°C (32°F) or above 40°C (104°F).

3.6 TAGASSIGN (FIELD DEVICE ASSIGNMENT)

TagAssign allows you to quickly assign yourself to a G8 device by tapping a paired NFC tag—no menu navigation or administrator required.

Before you can assign yourself to a G8 device, the following must be true:

- The G8 device must be initially assigned to you by your Blackline Live administrator in Blackline Live.
- The TagAssign feature must be enabled in Blackline Live.
- The G8 device must not be already assigned to another G8 user. The G8 device must first be unassigned, and then the new user can tag themselves with a paired NFC tag.
- The unpaired NFC tag must be paired to an assigned G8 device. This updates the tag with the user details.

3.6.1 VIEWING G8'S ASSIGNMENT STATE

You can check G8's current assignment state through the TagAssign Quick Access menu or through the TagAssign menu.

Quick Access Menu Assignment State

Press the left or right button to scroll to the TagAssign Quick Access menu.

Assigned State

When G8 is assigned, **Assigned** displays on the screen with a blue background and green status ring.

If the Unassign setting is enabled, the Unassign option displays. If the Unassign option is not enabled, the TagAssign logo displays with a green checkmark at the bottom of the screen.



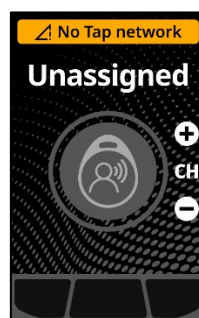
Unassigned State

When G8 is unassigned, **Unassigned** displays on the screen with an orange background and status ring.



No Network Connectivity

You cannot use TagAssign when the network is unavailable. A No Tap network message displays with a grayed-out background and status ring. If a tag is tapped, an error message displays.



Main Menu Assignment State

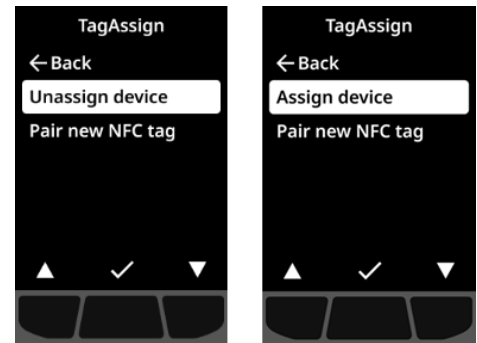
Press and hold the center button to navigate to the TagAssign menu.

Assigned State

When G8 is assigned, the TagAssign menu displays the Unassign device option.

Unassigned State

When G8 is unassigned, the TagAssign menu displays the Assign device option.



If TagAssign is not configured, an error message displays.

3.6.2 PAIRING AN NFC TAG WITH A G8 DEVICE

G8 users can quickly and easily set up their new NFC tag with the G8 assigned to them. When the NFC tag is paired to the G8 device, the current user details are transferred to the NFC tag.

NOTE: To pair an NFC tag, the G8 device must be assigned. You cannot pair an NFC tag to an unassigned G8.

There are two ways to pair a new NFC tag with a G8 device:

- **TagAssign via the Quick Access Menu:** Press the left or right button to scroll to the TagAssign Quick Access menu. Tap the NFC tag against the G8 device.
- **TagAssign via the Main Menu:** Press and hold the center button to navigate to the TagAssign menu. Use the left or right button to select **Pair new device**, then tap the NFC tag to G8.

The device assignment is sent to Blackline Live. The NFC tag now contains the assigned user details. The tag can be used to quickly assign the user to a different G8 device when needed.

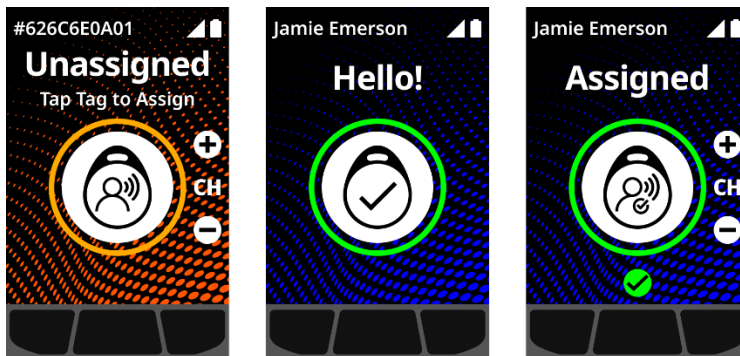
3.6.3 ASSIGNING G8 WITH TAGASSIGN

You can assign yourself to a G8 device by tapping your NFC tag on the TagAssign Quick Access menu or the Status screen, or by accessing TagAssign through the Main menu.

From the TagAssign Quick Access Menu

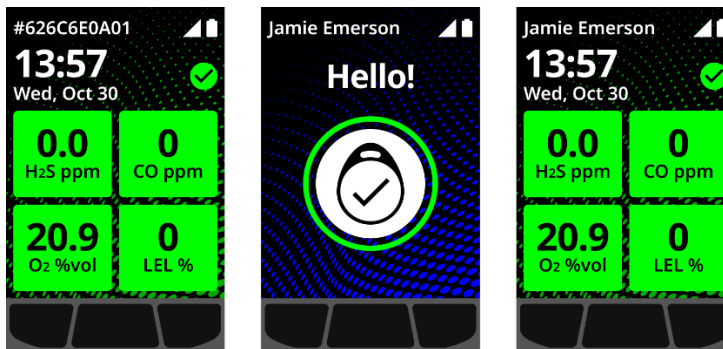
1. Navigate to the TagAssign Quick Access menu using the left or right button.
2. Hold your paired NFC tag near the top of G8. G8 vibrates once to confirm the tag was detected.

If successful, a **Hello!** screen appears briefly with a checkmark, then G8 updates to the **Assigned** state.



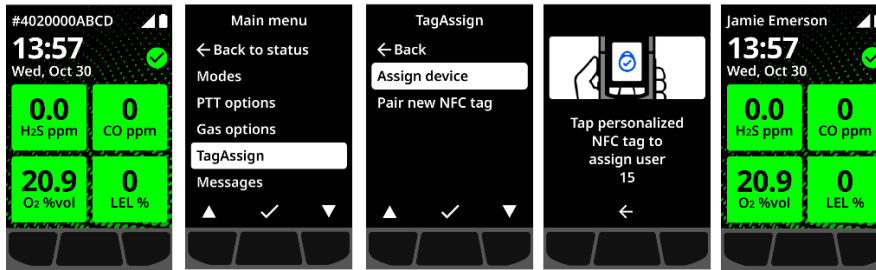
From the Status screen

1. Hold your paired NFC tag near the top of G8. The device vibrates once to confirm the tag was detected.



From the Main Menu

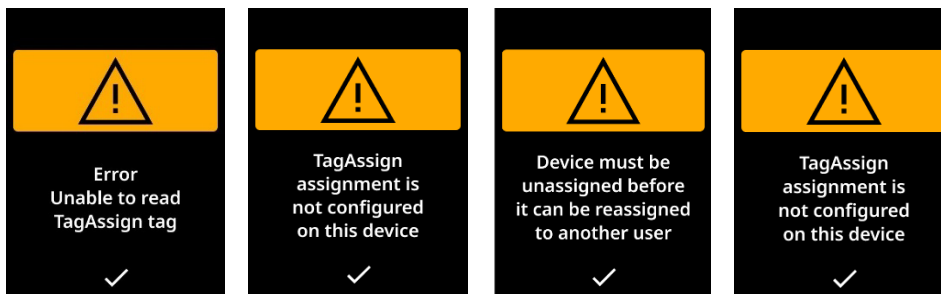
1. Open the Main menu and navigate to the TagAssign menu.
2. Press and hold the center button to open the TagAssign menu.
3. Select **Assign Device**.
4. Hold your paired NFC tag near the top of G8 until it vibrates once. If successful, a confirmation message displays. The message automatically clears after 2.5 seconds.



Assignment Error Messages

If the device assignment is unsuccessful, G8 displays one of the following error messages:

- Unable to read TagAssign tag – Tag read failed
- TagAssign is not configured on this device – Feature is disabled in Blackline Live
- Device must have network connectivity for TagAssign assignment – No signal
- Device must be unassigned before it can be reassigned to another user – Already in use. The previous assigned user remains active until the device is successfully reassigned.



3.6.4 UNASSIGNING G8 WITH TAGASSIGN

To unassign yourself from your G8, your organization must have TagAssign enabled, and your Blackline Live Administrator must enable the **Allow Team members to manually unassign themselves from the device** setting.

When the unassign feature is enabled, G8 users can unassign themselves from their assigned G8 device through the following:

- **TagAssign Quick Access menu:** Users can select the Unassign option from the bottom of the Quick Access menu.
- **TagAssign menu > Unassign option:** If enabled in Blackline Live, users can manually step through the G8 TagAssign menu to unassign themselves.
- **G7/G8 Dock:** If enabled in Blackline Live, when a G8 is inserted into Dock, the device is automatically unassigned.

- **G8 Multi-unit charger:** If enabled in Blackline Live, when a G8 is inserted into a multi-charger slot, the device is automatically unassigned.

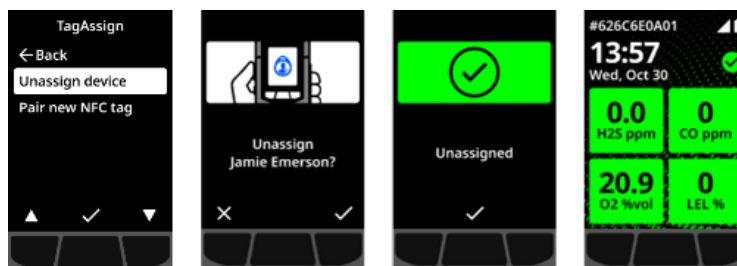
From TagAssign Quick Access Menu

1. Navigate to the TagAssign Quick Access menu using the left or right button. If enabled in Blackline Live, the Unassign option displays at the bottom of the screen.
2. Press the center button to select **Unassign**.
3. Confirm the unassign action when prompted. G8 vibrates once. The screen displays **Unassigning**, then switches to an Unassigned state once confirmed by Blackline Live.



From TagAssign Menu

1. Press and hold the center button to open the TagAssign menu.
2. Select **Unassign Device**.
3. Confirm the unassign action when prompted. G8 vibrates once. An **Unassigned** confirmation message displays. The screen returns to the Status screen after 2.5 seconds.

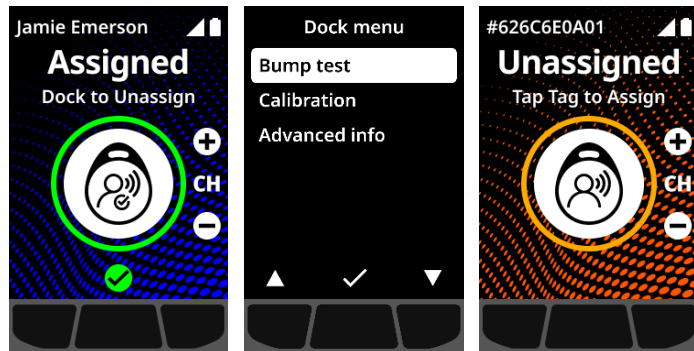


From G7/G8 Dock

If enabled in Blackline Live, placing G8 in G7/G8 Dock lets you automatically unassign G8.

When inserted into Dock, the Dock menu displays.

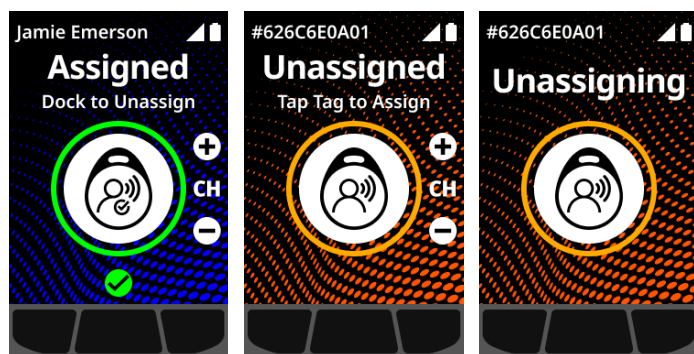
Once the device is removed from Dock, it is automatically unassigned and returns to an Unassigned state.



From a Multi-Charger

If enabled in Blackline Live, placing G8 in a multi-charger triggers automatic unassignment.

The screen briefly displays **Unassigning**, then transitions to the Unassigned state—no user action is required.



Unassignment Error Messages

If unassignment fails, G8 displays the **Unable to unassign [name]** message.

The device remains in the Assigned state until it is successfully unassigned.



3.7 ZONES

Zones are location-based areas defined in Blackline Live. They allow G8 to recognize when it enters a specific area—such as a worksite boundary, hazardous zone, or geofenced region.

What zones do

- Help identify where the device is operating
- Provide context when viewing the device in Blackline Live

- Display a zone name on G8 when entering a defined area

Managing zones in Blackline Live

Zones are created and managed in Blackline Live—not on G8. Contact your Blackline Live administrator for more information.

4 NOTIFICATIONS

G8 provides two main categories of notifications to alert you to issues that require your attention:

Operational: Triggered by a routine, expected device operation.

Urgent: Triggered by an unexpected, abnormal condition. These include pending, low-urgency, and high-urgency notifications.

4.1 ACKNOWLEDGING NOTIFICATIONS

To allow you to read and understand notifications, and to avoid accidentally muting the notification, there is a two-second delay before you can acknowledge full-screen notifications.

To acknowledge a notification:

1. **High-urgency:** Immediately evacuate the area and follow your emergency safety protocol.
2. **High-urgency:** Once you are in a safe location, read the information on G8's screen.
3. Press and hold the left and right buttons at the same time to mute the sound and vibration. This does not cancel the alert in Blackline Live.
4. To respond to escalated low-urgency notifications (fall detected, no-motion, missed check-in), press the center button until light, sound, and vibration patterns clear.



4.2 OPERATIONAL NOTIFICATIONS

An operational notification includes yellow flashing lights, sound, vibration, and an on-screen message specific to the event.

Operational notifications are local to your device and are activated when your device requires your attention.

4.2.1 OPERATIONAL NOTIFICATION TYPES

Operational notifications include:

- Bump test due (optional)
- Calibration due (optional)
- Bump test reminder (optional)
- Calibration reminder (optional)
- Timer done
- Low battery
- Lost connection

Low battery

The low-battery notification interval is configurable between 0%-70% by your Blackline Live administrator

The low-battery notification is activated when G8 detects that it is operating below the configured low battery threshold. G8 remains in low-battery status until it is charged above the configured threshold.



Banner:



Lost connection

The lost connection interval (in minutes) is configurable by your Blackline Live administrator.

The lost connection notification is activated when G8 fails to connect with Blackline Live for the configured time interval (e.g., five minutes).



Banner:

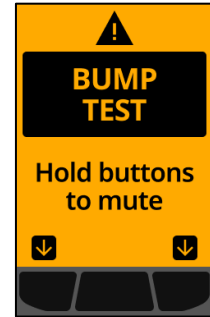


Bump test due

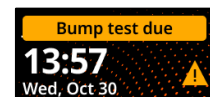
The bump test due notification is activated when:

- G8 is overdue for a bump test, based on your organization's configured bump test interval.
- A bump test is attempted but fails.

Following the bump test due notification, a message displays in the banner until the device is successfully bump tested. The device remains fully functional.



Banner:



Bump test reminder

The bump test reminder notification interval is configurable by your Blackline Live administrator. Your Blackline Live administrator can also mute the bump test reminder notification light, sound, and vibration patterns.

The bump test reminder notification is activated when G8 is due for a bump test within the interval (hours or days) as configured in Blackline Live.

Calibration due

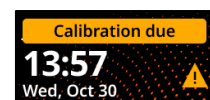
The calibration due notification is activated when:

- G8 is overdue for calibration based on your organization's configured interval.
- Calibration is attempted but fails.

Following the calibration due notification, a message displays in the banner until the device is successfully calibrated. The device remains fully functional.



Banner:



Calibration reminder

The calibration reminder notification interval is configurable by your Blackline Live administrator. Your Blackline Live administrator can also mute the calibration due notification light, sound, and vibration patterns.

The calibration reminder notification is activated when G8 is due for calibration within the interval (hours or days) as configured in Blackline Live.

4.3 URGENT NOTIFICATIONS

Urgent Notifications are triggered by an unexpected or abnormal condition and have three categories:

- Pending
- Low Urgency
- High-Urgency

4.3.1 PENDING NOTIFICATIONS

Pending Notifications are created when an unexpected condition occurs that will escalate in urgency if not acknowledged by the device user. A pending notification includes yellow flashing lights, sound, vibration (if enabled), and an on-screen message specific to the event. Pending notifications escalate to high-urgency notifications if you do not acknowledge them.

Pending notification examples include:

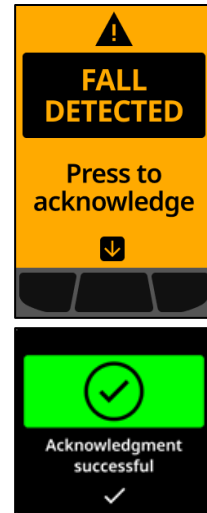
- Pending fall detected
- Pending no-motion
- Check-in reminder

Potential fall detected

The fall detected notification is configurable by your Blackline Live administrator.

The potential fall detected notification is activated when your G8 detects a sudden change in position.

If your device detects a potential fall and you have not responded to the low-urgency potential fall detected notification, your device activates a high-urgency fall detected notification.



Potential no-motion detected

The no-motion interval and sensitivity are configurable by your Blackline Live administrator.

The potential no-motion detected notification is activated if you do not move within the preset duration.

If you are not moving and you have not responded to the low urgency potential no-motion detected notification, your device activates a high urgency no-motion detected notification.



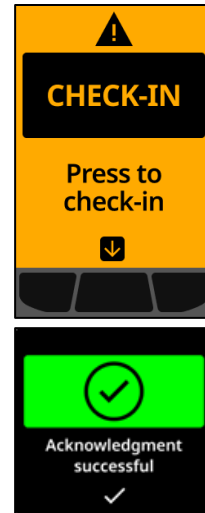
Check-in request

Check-in requests are configurable by your Blackline Live administrator. Both the check-in timer and pending notification time can be configured.

The check-in countdown can be displayed on your device's screen but must be enabled from the **Settings > Status Info** screen.

When enabled, the countdown replaces the date on the Status screen. The check-in request notification is activated when the check-in timer expires.

If you do not check in during the low-urgency check-in notification, your device activates a high-urgency missed check-in notification.



4.3.2 LOW-URGENCY NOTIFICATIONS

Low-urgency notifications communicate events that are triggered by an unexpected condition that could pose a safety risk if not addressed in a timely manner. A low-urgency notification includes yellow flashing lights, sound, vibration (if enabled), and an on-screen message specific to the event.

Low-urgency notifications are local to your device and monitoring personnel are not notified. Event data related to low-urgency notifications is uploaded to Blackline Live during your device's next synchronization.

Low-urgency notifications repeat until you acknowledge them or the condition/event is resolved.

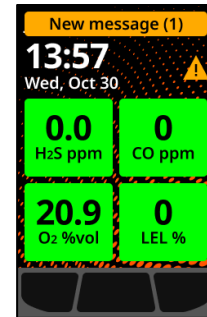
Low-urgency notifications include:

- Incoming message
- Emergency voice
- Sensor error
- Low Gas
- Under Limit
- Clean Air Startup Failure
- Sensor Failure
- Cartridge error
- Pump Blocked

- Pump Failure
- Unknown sensor
- Hardware (HW) Test Fail
- Firmware (FW) Error
- Text Message
- AlertLink

Incoming message

Your device can receive messages from monitoring personnel via Blackline Live. Messages are available in your device's Message inbox. For more information on sending and receiving messages, see section 8.2.



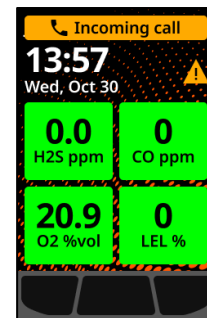
Banner:



Emergency Voice

If you have a G8 with a voice-enabled service plan, your notifies you when you have an incoming call from monitoring personnel.

In a noisy environment, it may be necessary to remove the device from your clothing and hold it near your ear, as you would a two-way radio.



Low gas

The low gas threshold is configurable by your Blackline administrator. The low gas notification is activated when gas levels reach the configured threshold for your device.

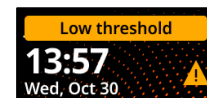
A G8 with an O₂ sensor notifies you in both oxygen-deficient and oxygen-enriched atmospheres.

You can choose to mute the sound and vibration portion of a low-gas notification, but the lights stay active and a low-threshold banner appears at the top of the Status screen.

After acknowledging a low-gas notification, move to an area where gas is not present. If you do not leave the area and gas levels remain above the low threshold, the low-gas notification reactivates after two minutes.



Banner:



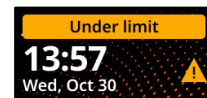
Sensor under limit

The sensor under limit (UL) notification is activated when your device detects an UL condition.

Following a UL notification, no peak is logged because the UL event type is closely related to a device or sensor error. To resolve the UL event, Blackline Safety recommends that you calibrate your device. For more information on calibration, see section 7.2.



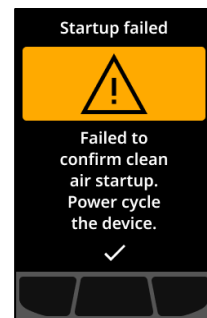
Banner:



Clean Air Startup Failure

If you fail to confirm clean air at the startup prompt, G8 displays a notification instructing you to power cycle the device.

If you mute the notification without power cycling the device, a **Startup failed** banner appears at the top of the Status screen.



Banner:

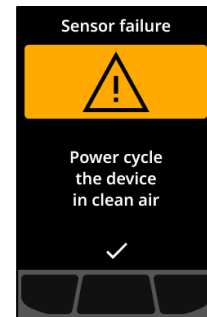


Sensor Failure

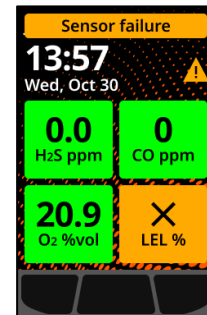
If G8 detects a sensor failure, it displays a message instructing you to power cycle the device in clean air.

If you dismiss the message without restarting, a **Sensor failure** banner appears at the top of the Status screen. The failed sensor is marked with an **X**, while all other sensors continue to display their readings.

If the failure persists, replace your cartridge. For more information, contact the Blackline Safety [Technical Support](#) team.



Banner:

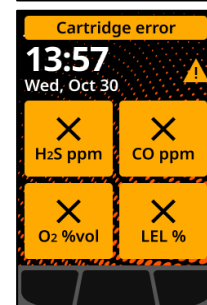


Cartridge Error

A Cartridge error occurs when all cartridge sensors fail or if the cartridge is removed while G8 is powered on.

When this happens, sensor readings are unavailable, and a **Cartridge error** banner appears on the Status screen.

Each sensor is marked with an **X** to indicate no readings are being taken.



Pump blocked

If your device is equipped with a multi-gas pump cartridge, the pump blocked notification is activated when your pump inlet is blocked. A **Pump blocked** banner appears on the Status screen.

This notification is resolved when regular pumped airflow resumes.



Banner:

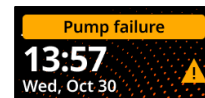


Pump Failure

Typically occurs when the G8 loses contact with the cartridge and the pump causing a pump failure. A **Pump failure** banner appears at the top of the Status screen.



Banner:

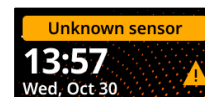


Unknown Sensor

This error occurs when the user puts a cartridge into the G8 with an unsupported sensor type, or the G8's service plan doesn't support that sensor type.



Banner:



Hardware (HW) Test Fail

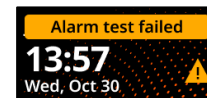
A hardware test failure occurs if one of G8's hardware components fails the self-test sequence at startup.

A banner appears at the top of the Status screen, for example **Alarm test failed**.

If your device has a Hardware Test Failure error, power cycle the device. If the error returns, calibrate the device. If the error persists after calibration, contact Blackline Safety [Technical Support](#) for assistance.



Banner:

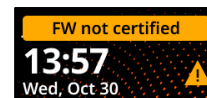


Firmware (FW) Error

Typically refers to an unsupported cartridge type. G8 only supports F2 Cartridges. A **FW not certified** banner appears at the top of the Status screen.



Banner:



Text Message

When G8 receives a new text message, a **New message** notification appears. The notification clears after viewing the message in your inbox.

The banner notification shows the number of unread messages in brackets.



Banner:



AlertLink

An AlertLink notification lets you know that another G8, G7c or EXO device within the configured proximity radius is experiencing a high-urgency event. AlertLink notifications trigger a unique light and sound pattern.

AlertLink is only available for self-monitored or Blackline-monitored organizations.

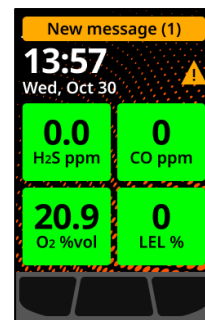
Your device receives a message at the time of the triggering event, which includes the alert type, the device user's name or device ID of the origin device, the origin device type, other device information, and the gas type when applicable.

When the AlertLink notification is activated, proceed based on your company's safety protocol. You can manually acknowledge the notification on the device, or it can be cleared remotely by monitoring personnel in Blackline Live.

AlertLink functionality and proximity radius can be configured in Blackline Live by your company's administrator. For more information, refer to the [Blackline Live Technical User Manual](#).



Banner:



4.3.3 HIGH-URGENCY NOTIFICATIONS

High-urgency notifications communicate events that require your immediate attention and action. A high-urgency notification includes red flashing lights, sound, vibration, and an on-screen message specific to the event.

If your organization is monitored, high-urgency notifications are immediately communicated to monitoring personnel and automatically generate an alert in Blackline Live.

NOTE: If your configuration profile has the gas alert countdown timer enabled, communication with monitoring personnel is delayed by 30 seconds.

High-urgency notifications include:

- Fall detected
- No-motion detected
- Missed check-in
- High gas
- Over limit (OL)
- Short term exposure limit (STEL)
- SOS alert
- Silent SOS
- Time weighted average (TWA)

Fall detected

The fall detected notification sensitivity is configurable by your Blackline Live administrator.

If your device detects a potential fall and you have not responded to the low-urgency potential fall detected notification, your device activates a high-urgency fall detected notification.

If AlertLink is enabled, G8 and EXO devices within the configured proximity radius of your device at the time of the triggering event receive a low-urgency notification and a message with the alert details.

NOTE: EXO may be excluded from receiving AlertLink messages.



Banner:



No-motion detected

The no-motion detected interval and sensitivity are configurable by your Blackline Live administrator.

If you are not moving and you have not responded to the low-urgency potential no-motion detected notification, your device activates a high-urgency no-motion detected notification.

If AlertLink is enabled, G8 and EXO devices within the configured proximity radius of your device at the time of the triggering event receive a low-urgency notification and a message with the alert details.

NOTE: EXO may be excluded from receiving AlertLink messages.



Banner:



High gas

The high-gas threshold notification is activated when G8 detects gas levels above the high-gas concentration threshold configured by your Blackline Live administrator.

A device equipped with an O₂ sensor activates high-gas notifications in both oxygen-deficient and oxygen-enriched environments.

If you mute the high-gas notification, your device's banner and lights reflect the high threshold status to indicate that the alert is still active until gas conditions return to normal and the high-gas event is resolved.

If muted high-gas event conditions persist past 60 seconds, the high-gas notification re-triggers with lights, sounds, and vibration until the high-gas event is resolved. For more details about muting high-gas notifications with LEL sensors, see section 14.3.

G8 is equipped with a high-gas countdown timer that is configurable (enabled/disabled) by your Blackline Live administrator. Enabling the countdown timer can help reduce the frequency of false high gas event notifications.

This timer can be configured to delay activation for 60, 90, or 120 seconds. If enabled, the countdown timer delays connecting to Blackline Live for 30 seconds (default).

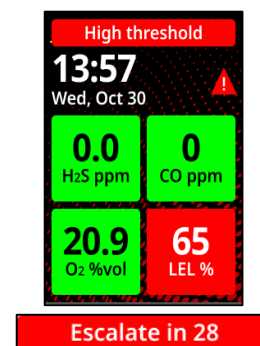
If AlertLink is enabled, G8 and EXO devices within the configured proximity radius of your device at the time of the triggering event receive a low-urgency notification and a message with the alert details.

NOTE: EXO may be excluded from receiving AlertLink messages.

Following the high-gas notification, the logged peak value of the high-gas event displays on the Gas options screen. The device shows the peak value recorded until a new peak is reached, or the peak value is reset during a power cycle of the device.



Banner:



Over limit (OL)

The sensor over limit (OL) notification is activated when your device detects that the gas reading has exceeded the range of its sensor.

When you acknowledge the OL notification, your device's banner and lights reflect the high-gas status until the gas conditions dissipate and the OL event is resolved.

If AlertLink is enabled, G8 and EXO devices within the configured proximity radius of your device at the time of the triggering event receive a low-urgency notification and a message with the alert details.

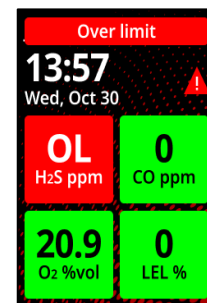
NOTE: EXO may be excluded from receiving AlertLink messages.

Following the OL notification, the logged peak value of the OL event displays on the Gas options screen. The device shows the peak value recorded until a new peak is reached, or the peak value is reset when the device is power cycled.

NOTE: Your Blackline Live administrator can configure your device to have G8 resume readings instead.



Banner:



Short term exposure limit (STEL)

The sensor short term exposure limit (STEL) notification is activated when G8 detects that the configured STEL threshold has been reached.

STEL refers to the gas concentration you can be exposed to over a short, rolling time frame (default: 15 minutes) without adverse health effects.

When you acknowledge the notification, your device's banner and lights continue to reflect the STEL status until gas levels drop and the event is resolved.

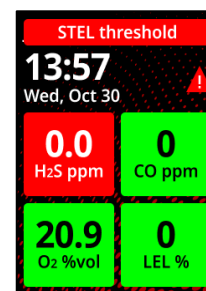
The red-light pattern persists after acknowledgment. If muted, and STEL conditions persist past 60 seconds, the notification reactivates with lights, sound, and vibration.

Following the STEL notification, the logged STEL value displays on the Gas options screen until the device is power cycled.

NOTE: Your Blackline Live administrator can configure your device to have G8 resume readings instead.



Banner:



SOS alert

If you require assistance, you can pull the red latch to manually send an SOS to monitoring personnel and request immediate help to your location.

When you acknowledge the notification, G8's lights turn off. The **Alert generated** banner remains on the screen until dismissed or automatically cleared.

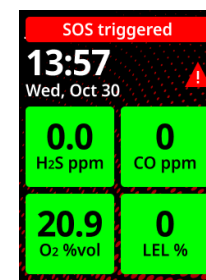
The SOS alert notification is configurable by your Blackline Live administrator.

If AlertLink is enabled, G8, G7 and EXO devices within the configured proximity radius of your device at the time of the triggering event receive a low-urgency notification and a message with the alert details.

NOTE: EXO may be excluded from receiving AlertLink messages.



Banner:

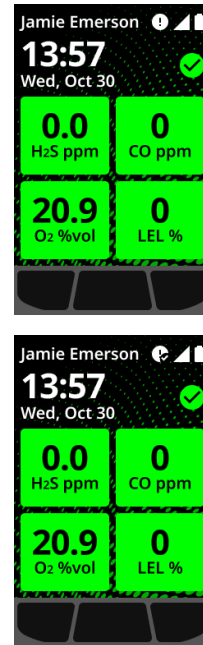


Silent SOS

Your device can be configured to send a silent SOS alert notification that does not activate your device's light, sound, and vibration indicators.

When a silent SOS is triggered, a Silent SOS banner appears with a circle-and-exclamation icon to indicate the alert has been sent. Once acknowledged by the Safety Operations Center, a checkmark will appear beside the banner icon.

NOTE: If you don't have a PTT service plan, G8's PTT button can be configured to send a silent SOS.



Time weighted average (TWA)

The time weighted average (TWA) notification is activated when G8 detects that you have exceeded the average allowable amount of gas exposure during a preset interval (default: eight hours).

The TWA interval used to calculate your allowable gas exposure is configurable and depends on the measuring method configured for your device by your Blackline Live administrator:

- **OSHA**—calculates TWA as a rolling average of gas exposure accumulated over an eight-hour period of operation. If the worker is in the field longer, the most recent eight-hour cumulative value is used.
- **ACGIH/EH40**—calculates TWA as the total accumulate average, from four to 16 hours as configured by your administrator.

When you acknowledge the notification, your device's banner and lights reflect the TWA status until the gas conditions dissipate and the TWA event is resolved.

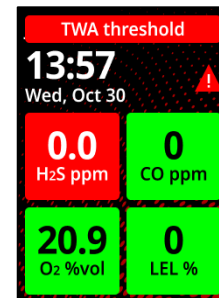
The device's red-light pattern persists after you acknowledge/mute the notification. If muted event conditions persist past 60 seconds, the TWA notification reactivates with lights, sound, and vibration.

Following the TWA notification, the logged peak value of the TWA event displays on the Gas options screen. The device shows the peak value recorded until a new peak is reached, or the peak value is reset when the device is power cycled.

NOTE: Your Blackline Live administrator can configure your device to have G8 resume readings instead.



Banner:



4.4 LIVE RESPONSE

The blue LiveResponse light lets you know that remote monitoring personnel are responding to your high-urgency notification using your team's emergency response protocol. Once monitoring personnel have confirmed your safety and resolved the alert, your device's blue LiveResponse light shuts off.

If a silent SOS alert is sent, the blue LiveResponse light does not illuminate. Instead, G8 can be configured to vibrate to let you know that remote monitoring personnel are responding by following your team's emergency protocol.

 **WARNING:** Do NOT power off G8 if the blue LiveResponse light is on.

5 GAS DETECTION

5.1 BUMP TESTING G8

Bump testing verifies that your device's gas sensors and notification indicators (lights, sound, and vibration) are functioning correctly. During a bump test, you apply a known concentration and amount of gas to confirm the sensor will trigger a notification due to the gas exposure. The results of each bump test are sent to Blackline Live automatically.

The bump test schedule can be configured to match your company's safety policy. These changes can be made in the configuration profile on Blackline Live.

Blackline recommends that your bump test interval not exceed 30 days. Where site or regulatory requirements are more stringent, Blackline recommends the more stringent requirements apply.

G8 reminds you when a bump test is overdue. For more information on G8 bump testing notifications, see section 4.

You can manually bump test by applying the target gas to your gas sensor. To manually bump test G8, you need a calibration cap (ACC-Q-CAL for a multi-gas cartridge, ACC-S-CAL for a single-gas cartridge) and tube (ACC-T2).

Alternatively, you can bump test using G8 Dock (DOCK-P-NA/DOCK-P-EU). For more information on bump testing with G8 Dock, refer to the [G7/G8 Dock Technical User Manual](#) on the Blackline Support site.

Gas cylinders

Sensors can be manually bump tested at the same time using one gas cylinder or individually using multiple gas cylinders. If using multiple cylinders, the manual bump testing process must be repeated for each cylinder.

Some cartridges require you to bump test sensors in a specific order due to gas sensor cross sensitivity. For details, see the following support articles on the Blackline Support site:

- [Gas Sensor Cross Sensitivity](#)
- [Gas Sensor Bump Testing and Calibration Order](#)
- [Manually Bump Testing with Multiple Gas Cylinders](#)

The gas concentration of the connected gas cylinder should match the gas concentration listed in your device's calibration gas configuration in Blackline Live.

⚠ WARNING: Only perform bump tests in a known clean environment.

To manually bump test G8 using a calibration cap and tube:

1. Attach the tube and calibration cap, ensuring the tube is securely attached to the fixed-flow regulator and calibration cap.

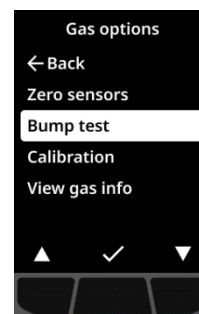
IMPORTANT: Do not turn on the gas cylinder until G8 indicates you should do so.

2. From the Status screen, press the center button to open G8's Main Menu.

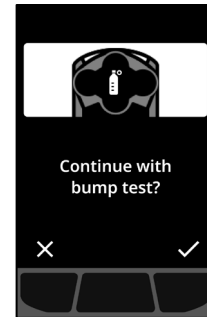
3. Using the left and right buttons, scroll through the menu, then select **Gas options** by pressing the center button. The Gas info menu opens.



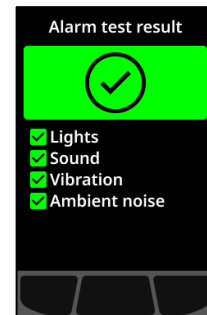
4. Using the left and right buttons, scroll through the menu, then select **Bump test** by pressing the center button.



5. Select **Yes** by pressing the right button to continue. To exit the workflow, select **No** by pressing the left button.



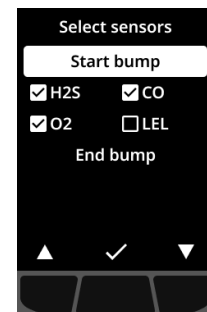
G8 performs an automatic audio and visual assessment to test vibration and lights.



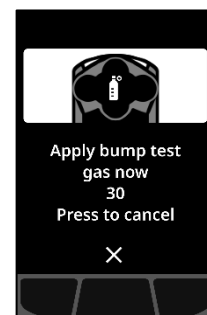
6. Select the sensors you want to bump test. By default, G8 bump tests all sensors.

If you do not want to bump test all the sensors, are bump testing in a specific order, or are using multiple gas cylinders, use the left and right buttons to scroll through the sensors, then press the center button to select or clear the checkbox for each sensor.

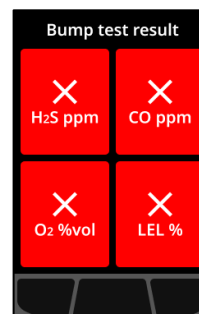
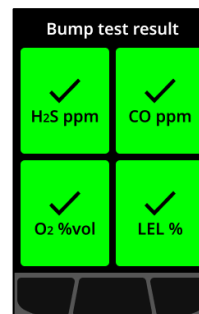
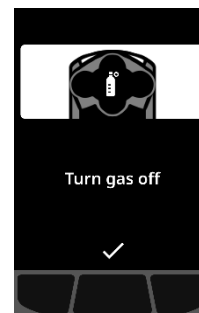
G8 begins to count down from 60.



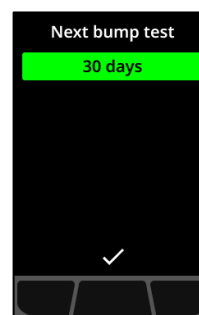
7. Apply the gas within this time window.



8. Turn the gas off when prompted on your G8 screen. Press the center button to complete bump test.



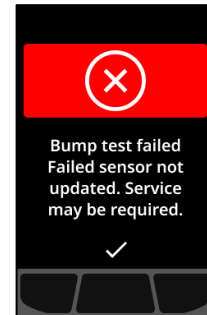
G8 displays whether the bump test has passed or failed, and when your next bump test is due.



9. Remove the calibration cap and let your G8 sit until the readings stabilize and the device has returned to baseline.



10. If a bump test failed message displays, try the bump test again. If the error persists, please contact the Blackline Safety [Technical Support](#) team.



5.2 CALIBRATING G8

Calibration ensures G8 can accurately detect gas. This procedure adjusts sensor parameters while the sensors are exposed to a known concentration of gas for a set amount of time. Calibrations must be done periodically throughout a sensor's operating life. The data collected from each procedure is sent to Blackline Live automatically.

The calibration schedule can be configured to match your company's safety policy. These changes are made in the configuration profile on Blackline Live.

All sensors on a cartridge share the same calibration schedule, but if you choose to calibrate sensors individually, they can become due independent of the other sensors. Blackline recommends calibrating all the sensors on a cartridge in a single calibration process.

NOTE: Blackline recommends not exceeding 180 days between calibrations.

G8 automatically communicates calibration data to Blackline Live at the device's next scheduled synchronization and reminds you when a calibration is overdue. For more information on G8 calibration notifications, see section 4.

You can manually calibrate your G8 by applying the target gas to your gas sensors. To manually calibrate G8, you need a calibration cap (ACC-Q-CAL or ACC-S-CAL) and tube (ACC-T2).

Alternatively, you can calibrate using G8 Dock (DOCK-P-NA/DOCK-P-EU). For more information on calibrating your device with G8 Dock, refer to the [G7/G8 Dock Technical User Manual](#) on the Blackline Support site.

Gas cylinders

Sensors can be manually calibrated at the same time using one gas cylinder or individually using multiple gas cylinders. If using multiple cylinders, the manual calibration process must be repeated for each cylinder.

Some cartridges require you to calibrate sensors in a specific order due to gas sensor cross sensitivity. For details, refer to the following support articles on the Blackline Support site:

- [Gas Sensor Cross Sensitivity](#)
- [Gas Sensor Bump Testing and Calibration Order](#)
- [Manually Calibrating with Multiple Gas Cylinders](#)

The gas concentration of the connected gas cylinder should match the gas concentration listed in your device's calibration gas configuration in Blackline Live.

To manually calibrate G8 using a calibration cap and tube:

1. Attach the tube and calibration cap, ensuring the tube is securely attached to the fixed flow regulator and calibration cap.

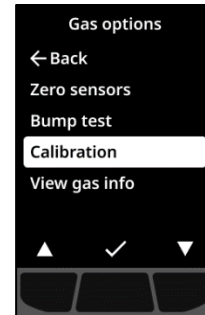
IMPORTANT: Do not turn on the gas cylinder until G8 indicates you should do so.

2. From the Status screen, press the center button to open G8's Main Menu.

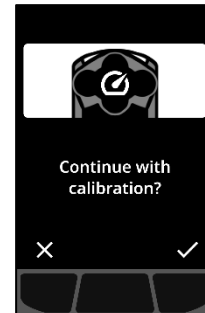
3. Using the left and right buttons, scroll through the menu and select **Gas options** by pressing the center button. The Gas info menu opens.



4. Using the left and right buttons, scroll through the menu, then select **Calibration** by pressing the center button.

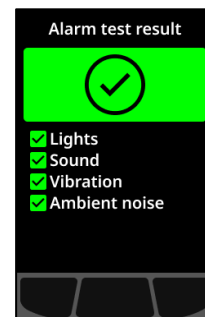


5. Select **Yes** by pressing the right button to continue. To exit the workflow, select **No** by pressing the left button.



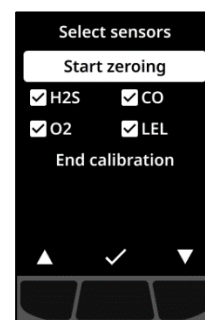
G8 performs an automatic audio and visual assessment to test vibration and lights.

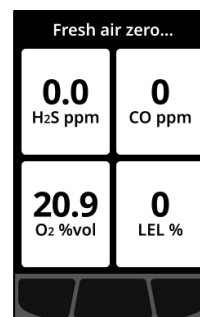
NOTE: Light operation may be suppressed for up to five seconds. For more details, see section 14.3.



6. Select **Start zeroing** by pressing the center button. G8 zeros the sensors before the calibration starts.

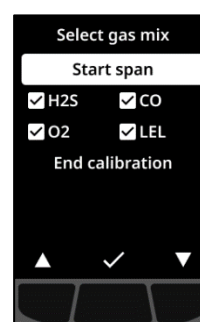
IMPORTANT: Do not clear any checkboxes before zeroing. If you are not calibrating all sensors at the same time (i.e., you are only calibrating specific sensors or you are using multiple gas cylinders), you must wait for zeroing to complete before selecting which sensors to calibrate.





7. Select the sensors you want to calibrate. By default, G8 calibrates all sensors.

If you do not want to calibrate all the sensors, are calibrating in a specific order, or are using multiple gas cylinders, use the left and right buttons to scroll through the sensors, then press the center button to select or clear the checkbox for each sensor.



8. Use the left and right buttons to select **Start span** and press the center button to start the calibration. G8 begins to count down from 60.



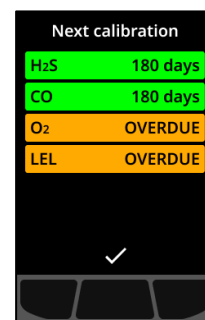
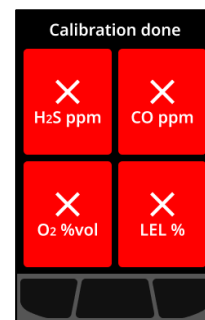
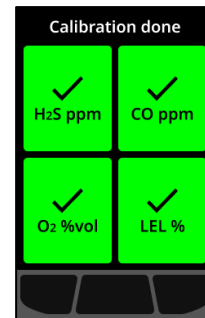
9. Apply the gas within this time window.



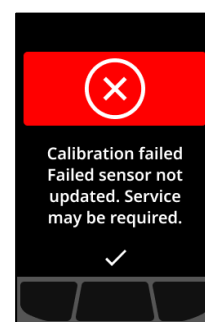
10. Turn off the gas when prompted on your G8 screen. Press the center button to complete the calibration.

11. Allow the residual gas to clear, then disconnect the cap from your G8.

G8 displays if the calibration has passed or failed, and when your next calibration is due.



If you see a calibration fail message on your LCD screen, try the calibration again. If the error persists, please contact the Blackline Safety [Technical Support](#) team.



5.3 CALIBRATING G8 ClO₂ SENSORS

The calibration of chlorine dioxide (ClO₂) sensors requires the use of a gas generator, not bottled gas, to supply calibration gas. For detailed instructions on calibrating ClO₂ sensors, refer to [Calibrating ClO₂ sensors](#) on the Blackline Support site.

5.4 CALIBRATING G8 O₃ SENSORS

The calibration of ozone (O₃) sensors requires the use of a gas generator connected to a gas bottle containing 20% oxygen balanced with nitrogen to supply calibration gas. For detailed instructions on calibrating O₃ sensors, refer to [Calibrating O₃ Sensors](#) article on the Blackline Support site.

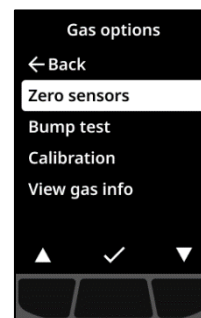
5.5 ZEROING G8

If G8 is not reading zero and you know you are in an atmosphere with no gas, G8's baseline may have shifted, and the sensors may need to be zeroed. If you can calibrate your device, it is best practice to do so, but you can manually zero your sensors if you are unable to calibrate.

NOTE: The baseline reading for oxygen is 20.9.

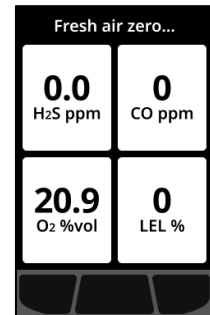
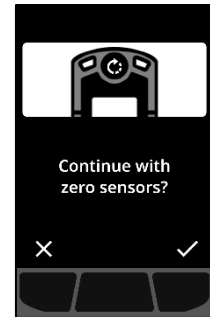
To manually zero G8:

1. Using the left and right buttons, scroll through the menu, then select **Gas options** by pressing the center button. The Gas info menu opens.
2. Using the left and right buttons, scroll through the menu, then select **Zero sensors** by pressing the center button.



3. To continue, select **Yes** by pressing the left button. To exit the workflow, select **No** by pressing the right button.

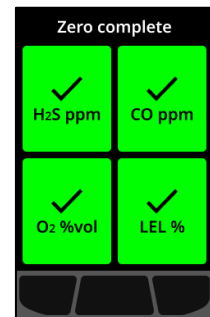
By default, G8 zeroes all sensors.



4. Press the center button to return to the Gas info menu.

NOTE: If you see a zero incomplete message on your screen you may be in an environment with gas levels, or your cartridge may need to be replaced.

Contact your organization's safety professional or the Blackline Safety [Technical Support](#) team for assistance troubleshooting your device.



5.6 ACCESSING GAS SENSOR SETTINGS

Use the Gas info menu to access gas sensor information, reset readings, and overwrite configuration profile defaults.

5.6.1 ACCESSING THE GAS INFO MENU

To access the Gas info menu:

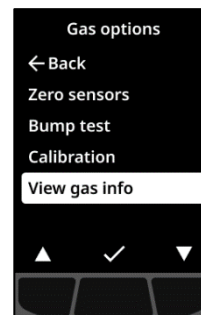
1. From the Status screen, press the center button to open G8's Main Menu.

2. Using the left and right buttons, scroll through the menu, then select **Gas options** by pressing the center button. The Gas info menu opens.



3. Using the left and right buttons, scroll through the menu, then select **View gas info** by pressing the center button.

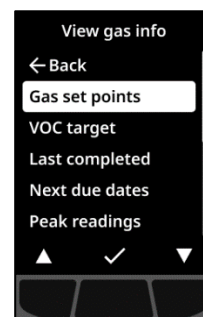
To return to the Main menu, scroll through the menu, then select **Back** by pressing the center button.



5.6.2 VIEWING GAS SENSOR INFORMATION

To view gas set points:

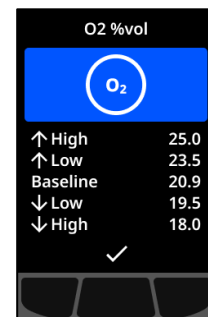
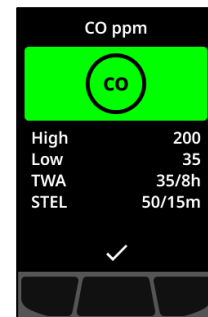
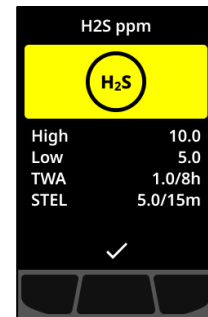
1. From the Gas info menu, scroll through the menu, then select **Gas set points** by pressing the center button.



The Gas set points screen opens, displaying the gas sensor set points for your device.

The setpoints are configurable by your Blackline Live administrator. For more information on your device settings, contact your administrator.

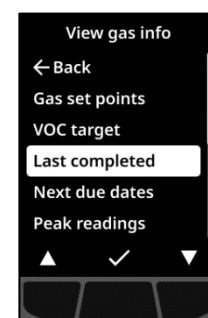
2. Press the center button to advance through the gas setpoint screens and return to the Gas info menu.



To view last completed calibration and bump test:

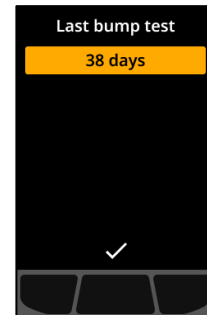
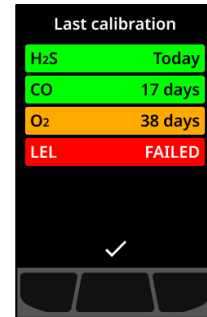
1. From the Gas info menu, scroll through the menu, then select **Last completed** by pressing the center button.

The last completed screen opens, displaying the date of the last completed calibration and bump test for your device.



If your device sensor did not successfully complete the calibration or bump, the status displays as **FAILED**.

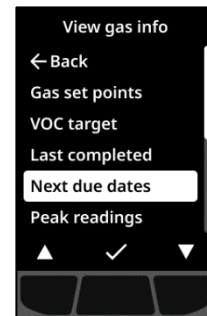
2. Press the center button to close the screen and return to the Gas info menu.



To view next calibration and bump testing due dates:

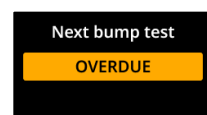
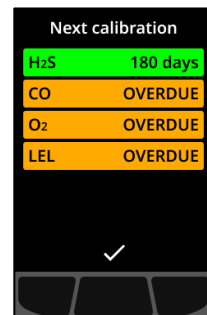
1. From the Gas info menu, scroll through the menu, then select **Next due dates** by pressing the center button.

The next due date screen opens, displaying the next date calibration and bump testing are due for your device sensors.



If your device is overdue for calibration or bump testing, the sensor status displays as **OVERDUE**.

2. Press the center button to close the screen and return to the Gas info menu.



5.6.3 VIEWING AND RESETTING GAS READINGS

Use the Gas options feature to view and reset logged gas readings. Gas readings are only logged and displayed if the configured low/high setpoint is met or exceeded and a notification is triggered.

You can view and, if enabled, reset the following gas readings for your device:

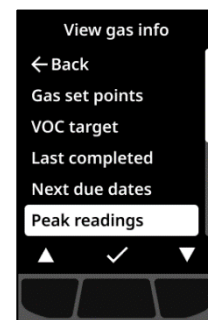
- Peak Gas reading
- Short Term Exposure Limit (STEL) reading
- Time Weighted Average (TWA) reading

You cannot reset the gas readings while your device is in a low- or high-urgency status. After acknowledging the alert, peak readings can be reset—but live gas levels will continue to be displayed if gas is present.

To view peak gas readings:

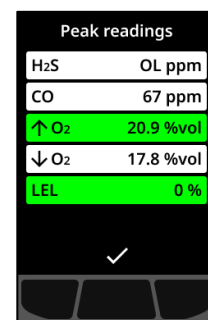
1. From the Gas info menu, scroll through the menu, then select **Peak readings** by pressing the center button.

The Peak readings screen opens, displaying the logged peak readings (gas events) for your device.



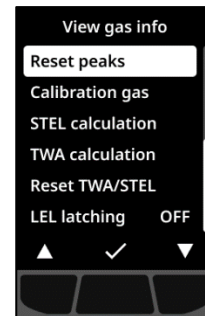
By default, the peak gas readings for your device automatically reset when your device is power cycled. You can manually reset peak gas readings for your devices using the Gas info menu.

2. Press the center button to close the screen and return to the Gas info menu.

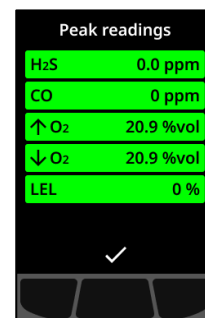
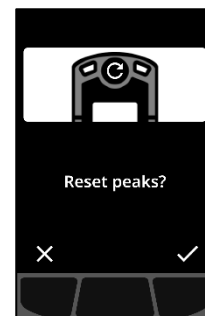


To reset peak gas readings:

1. From the Gas info menu, scroll through the menu, then select **Reset peaks** by pressing the center button.



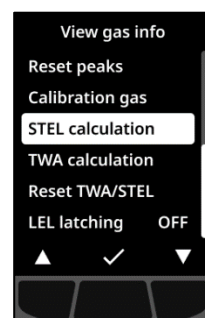
2. Select **Yes** by pressing the right button. The Peak readings screen opens, displaying the reset values.
3. Press the center button to close the screen and return to the Gas info menu.



To view current STEL calculation:

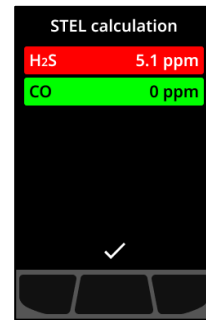
1. From the Gas info menu, scroll through the menu, then select **STEL calculation** by pressing the center button.

The short-term exposure limit (STEL) calculation screen opens, displaying the current calculated STEL for your device.



By default, the STEL value for your device automatically resets when your device is power cycled. You can manually reset the STEL value for your devices using the Gas info menu.

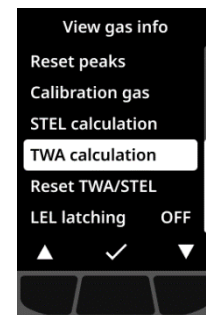
2. Press the center button to close the screen and return to the Gas info menu.



To view current TWA calculation:

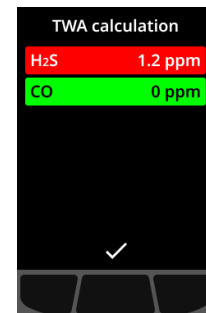
1. From the Gas info menu, scroll through the menu, then select **TWA calculation** by pressing the center button.

The time-weighted average (TWA) calculation screen opens, displaying the current calculated TWA for your device.



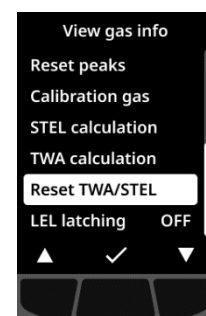
By default, the TWA value for your device automatically resets when your device is power cycled. You can manually reset the TWA value for your devices using the Gas info menu.

2. Press the center button to close the screen and return to the Gas info menu.

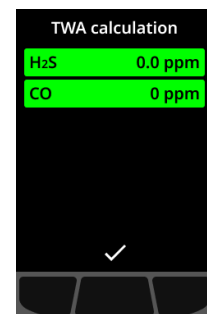
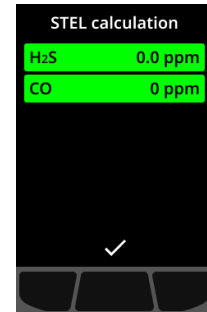
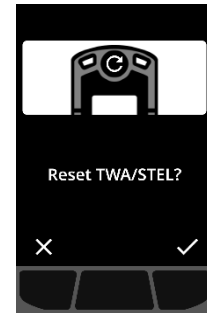


To reset STEL and TWA:

1. From the Gas info menu, scroll through the menu, then select **Reset TWA/STEL** by pressing the center button.



2. To confirm the reset, select **Yes** by pressing the left button.
To exit the workflow, select **No** by pressing the right button.



The STEL and TWA screens are reset to zero (0).

5.6.4 VIEWING PHOTOIONIZATION DETECTOR (PID) SENSOR TARGET GAS

Photoionization detector (PID) sensors can be used to detect a large range of gases. A target gas refers to the specific gas you are trying to detect. G8's readings adjust based on the target gas it is configured to detect.

Although PID sensors target a specific volatile organic compound (VOC) gas, readings can still be affected by the presence of non-targeted gases. Consult your safety supervisor or industrial hygienist when preparing to use a PID sensor.

G8's PID sensor target gas is set from the configuration profile in Blackline Live. For more information, contact your Blackline Live administrator.

To view G8's PID configured target gas:

1. From the Gas info menu, scroll through the menu, then select **VOC target** by pressing the center button.

NOTE: The device's VOC target gas also displays when you power on your device.

2. The VOC target gas screen opens, displaying the target gas name, as well as its correction factor for your device.
3. Press the center button to close the screen and return to the Gas info menu.

5.7 CONFIGURING GAS DETECTION MODES

Configuration modes are customized in the G8 configuration profile in Blackline Live. Each profile supports up to five modes. These modes allow G8 to temporarily change its behavior for different situations and can be turned on and off through G8's interface.

Available gas detection modes include:

Normal	Use this mode for everyday operation. G8 operates using this mode as a default.
Pre-entry	Activate this mode before entering a space that could potentially contain dangerous gas. Pre-entry mode can be used with or without a pump cartridge, which actively draws surrounding air to its sensors and test gas levels.
SCBA	Use this mode when you are wearing a self-contained or supplied air breathing apparatus (SCBA/SABA) and are entering an area that is known to have high-gas levels.
Leak check	Use this mode when checking for gas leaks in a particular area. This mode – like pre-entry mode – can be used with or without a pump cartridge.
High risk	Use this mode for general high-risk situations, such as an evacuation or travelling through a dangerous area. High risk mode allows devices to have more frequent check-ins and modified functional settings. Unlike the other modes, it never times out and must be exited manually.
Pump run	Pump run mode requires a pump cartridge, and it runs the pump continuously—such as for use in a hole-watch situation. Unlike the other modes, it never times out and must be exited manually.
Over LEL	This mode lets you silence LEL alarms and alerts when you are entering a known high gas environment. Over LEL mode must be

activated prior to entering the high gas environment and can be configured to time out after a specified period.

Blackline Safety must turn on this feature for your company before it is available in your Blackline Live organization. For more information, please contact Blackline Safety's [Technical Support](#) team.

NOTE: Some modes can be configured in Blackline Live so that they are only available when a pump cartridge is installed. To enter a mode that uses the pump, you must complete a successful pump block test.

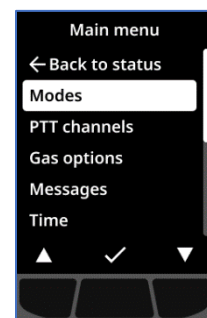
Gas detection modes used in areas with potential gas (pre-entry, SCBA, leak check, and over LEL) have a timeout period. After the timeout interval has elapsed, you are prompted to confirm whether you would like to continue in this mode:

- If you select **Yes**, the mode remains active.
- If you select **No**, G8 returns to normal operation.
- If you do not make a selection within 30 seconds, G8 automatically returns to normal operation. If you have a check-in timer enabled, G8 immediately prompts you to check in.

For more information on gas detection configuration modes, see section 14.3 and refer to the [Blackline Live Technical User Manual](#).

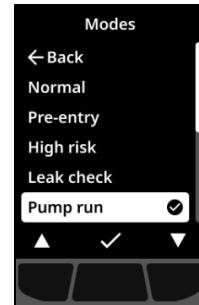
To configure a gas detection mode using the G8 Modes menu:

1. From the Status screen, press the center button to open G8's Main menu.
2. Using the left and right buttons, scroll through the menu, then select **Modes** by pressing the center button. The Modes menu opens.

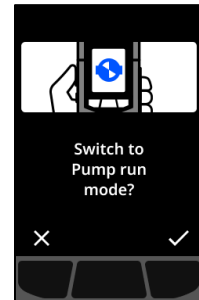


3. Using the left and right buttons, scroll through the menu and select a mode by pressing the center button. A prompt displays to confirm you want to switch to the selected mode.

NOTE: Your device's active settings are flagged with a checkmark.



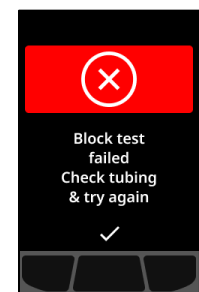
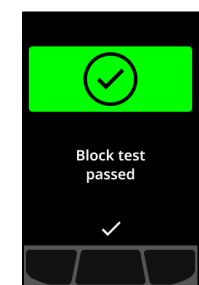
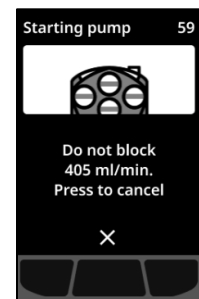
4. Select **Yes** by pressing the right button.



If the mode selected uses a pump, G8 tests the pump flow before entering the mode.

Follow the steps on G8's screen to complete the block test, blocking and unblocking the gas flow when prompted by your device.

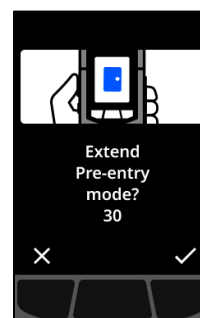
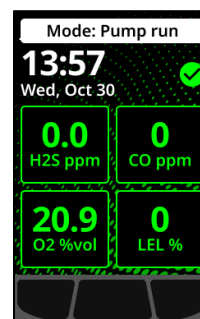
Select the center button to cancel the flow test at any time. If the block test fails, check G8's tubing and try turning on the mode again.



When your device successfully activates the selected mode, the main screen's color scheme inverts, and the banner indicates the mode selected.

Depending on the mode selected, G8 remains in the mode until it times out according to the settings in the configuration profile, or until you manually exit the mode.

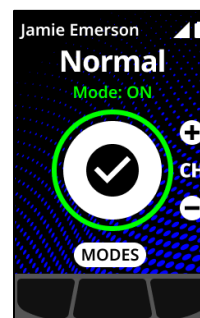
5. To manually exit a mode and return to normal operation, open the Modes menu, then select **Normal**.
6. You can extend the current mode by selecting the right button when prompted.

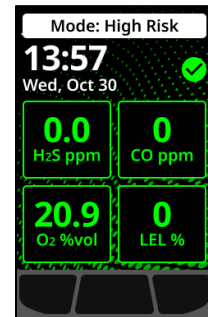
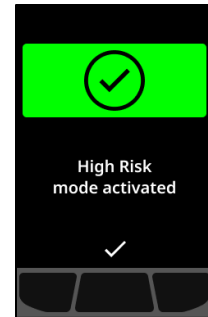


To configure a gas detection mode using the G8 Modes Quick Access menu:

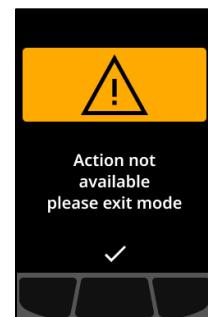
1. From the Status screen, press the left or right button until you reach the Modes Quick Access menu.
2. Press the center button to change modes.

The main screen's color scheme inverts, and the information banner displays the current mode.

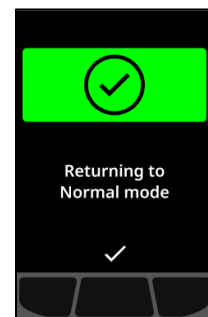




3. Exit a mode from the Modes Quick Access menu by pressing the center button, then press the right button to confirm.



4. Press the center button to return to normal operation mode.



5.8 SETTING CALIBRATION AND BUMP TEST REMINDERS

Enabling the calibration and bump test reminders feature ensures that you are notified that a calibration or bump test is due upon start-up instead of while you are in the field.

For example, if you have a daily bump test interval, your bump test is due every 24 hours.

If you have not set up a reminder window and you start your shift two hours early one day, you are not prompted to bump test your device because 24 hours has not elapsed. When the bump test becomes due, you may already be out in the field without bump test materials.

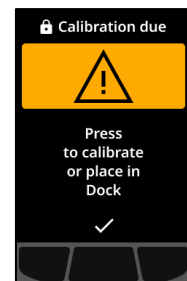
If you have set up a two-hour bump test/calibration reminder window and start your shift two hours early, G8 notifies you that the bump test is due on start-up because the bump test is due within this two-hour window. As a result, you avoid a bump test due event while in the field.

The bump test and calibration reminder window can be customized from G8's configuration profile in Blackline Live. For more information, contact your Blackline Live administrator.

5.9 SETTING CALIBRATION AND BUMP TEST LOCKS

This feature locks the device's screen and all functionality when a bump test or calibration is due on start-up.

When locked, you cannot use your G8 in any capacity (including gas readings, SOS latch, messaging) until it has been successfully bump tested or calibrated.



If the bump test or calibration lock is enabled and becomes due during your shift, your device does not lock unless it is power cycled. Your G8 notifies you that a bump test or calibration is due, and a message displays in the banner, but the device remains fully functional.

If the bump test or calibration lock is enabled and becomes due during your shift, and you power cycle your device, your device locks.

The calibration or bump test lock can be enabled from G8's configuration profile in Blackline Live. For more information, contact your Blackline Live administrator.

5.10 CONFIGURING THE G8 GAS ALERT COUNTDOWN

This feature makes it easier to prevent false alarms from being delivered to monitoring services. Gases like CO and O₂ can spike and dip very quickly, setting G8 into high-gas status even when gas levels go back to normal.

The gas alert countdown is an optional gas feature that creates a time buffer before a high-gas alert is delivered to Blackline Live and monitoring personnel.

G8's gas alert countdown can be enabled from the configuration profile in Blackline Live. For more information, contact your Blackline Live administrator.

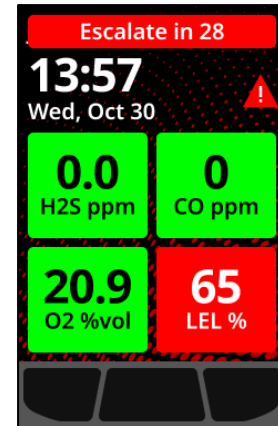
How Gas alert countdown works

Typically, when a device's high-gas threshold is crossed, the device immediately sends an alert to Blackline Live. This is done so that monitoring personnel can investigate the incident and follow up with the device user to ensure their safety.

Since the alert is sent immediately, it can result in false alarms where monitoring personnel are alerted even though the exposure was momentary, and the device user is back in a safe area.

When the gas alert countdown feature is enabled, the device waits the configured amount of time before sending an alert. G8 still displays high-urgency lights, sound, and vibration so the user knows to leave the immediate area.

With the gas alert countdown active, the banner at the top of the screen shows the remaining time before an alert is sent to Blackline Live. If gas levels return to normal before this time has elapsed, the alert is cleared. The gas exposure is still visible in the device history view on Blackline Live but does not appear as an alert in the Alerts list.



5.11 USING THE G8 MULTI-GAS PUMP CARTRIDGE

G8's multi-gas pump cartridge is a plug-and-play cartridge that you can attach to G8. The pump cartridge allows you to actively test different areas prior to entering (e.g., down manholes) to determine if the environment is safe.

The pump cartridge uses configuration modes to enable and disable the pump. G8 has three pumped modes: pre-entry, leak check, and pump run. The pump cartridge is toggled between diffusion and pumped operation by entering and exiting gas detection modes.

To turn the pump on:

To perform the following steps, your G8 must be equipped with a multi-gas pump cartridge and pumped modes. Pumped modes can be configured in Blackline Live. For more details, see section 14.3.

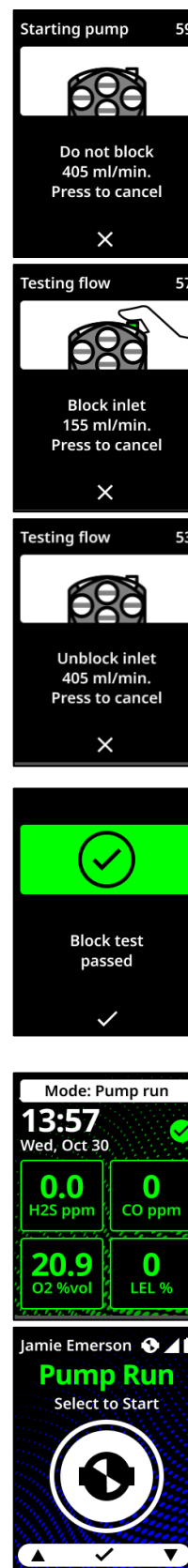
1. Select the pumped mode you wish to enter using G8's **Mode** menu or Quick Access menu. For more information, see section 7.7.

G8 tests the pump flow before entering the mode.

2. Follow the steps on G8's screen to complete the pump block test, blocking and unblocking the gas flow when prompted.

3. Press the center button to cancel the test at any time. If the pump block test fails, check G8's tubing and try to activate the mode again.

When the test is complete, the main screen color scheme inverts and the banner indicates you are in the mode selected. If your cartridge includes an LEL sensor, the yellow LED light illuminates to visually notify you that the pump is running.



To turn pump off:

1. Switch to any non-pumped mode, such as normal, SCBA or high-risk mode.
 - If you enter a secondary mode, the yellow LED pattern remains on.
 - If you enter normal mode, the yellow LED light turns off.

For more information, see section 7.7.

To view pump information:

1. From G8's Status screen, press the left or right button.

The Pump details screen opens, displaying pump status, tubing length, flow rate, and sample time (if enabled).

NOTE: Flow rate is the speed that air is passing over your device's sensors. To provide accurate gas readings, flow rate must be above 150 ml/min. A flow rate less than 150 ml/min results in a pump block notification.

By default, Blackline's pump aims to maintain a flow rate of 300 ml/min and G8 automatically adjusts its pump speed to maintain this rate.



5.11.1 BUMP TESTING OR CALIBRATING A G8 MULTI-GAS PUMP CARTRIDGE

Manual bump testing and calibrating of G8 pump cartridges is done using the same calibration cap and method as G8's multi-gas diffusion cartridge. G8 cannot be bump tested or calibrated through the pump itself. For more information, see section 7.1 and 7.2.

NOTE: Bump testing and calibrating with a G7/G8 Dock requires a Dock with **Dock-P** unit ID.

5.11.2 BLOCK TESTING A G8 MULTI-GAS PUMP CARTRIDGE

Pump block tests are performed when you activate any pumped operating mode (leak check, pre-entry, or pump run) on your device. For more information on selecting your device's operating mode, see section 7.7.

When you are in a pumped mode, you can perform a manual block test at any time by blocking G8's inlet. This causes G8 to go into low-urgency status, and your screen prompts you that the pump is blocked. Unplug the inlet. If the device returns to OK status, your device is safe to use.

NOTE: When performing an automatic pump block test, G8 is in safe mode and gas alerts are not triggered. This prevents triggering false alerts from residual gas in the hose.

5.11.3 CONFIGURING A G8 MULTI-GAS PUMP CARTRIDGE SAMPLE TIMER

The sample timer is the amount of time it takes for one air sample to be pumped to your sensors. This calculation is based on your tube length.

If the sample timer is enabled, the pump Quick Access Menu shows a countdown and beeps once when a sample cycle completes. The sample cycle repeats continuously until you turn the pump off.

If disabled, the sample timer does not show, the device does not beep, and the pump continues to function normally.

Blackline recommends a 120-second sample time for 10 feet of tube, with an additional second per foot of tube.

Settings for the pump can be found in G8's Main menu, under **Settings > Pump options**. For more information, see section 9.

5.11.4 CHANGING A G8 MULTI-GAS PUMP CARTRIDGE TUBE LENGTH

Tube length is an estimate of how long the tube attached to the pump is. This value is customizable from the Pump options menu, and factors into sample time. G8's multi-gas pump cartridge supports maximum tube lengths of:

- 100 ft of 0.188" diameter tube (30.2 m x 4.78 mm) or,
- 50 ft of 0.125" diameter tube (15.25 m x 3.17 mm).

G8 pump settings can be found in the Device settings menu. For more information, see section 9.4.2.

6 G8 FEATURES

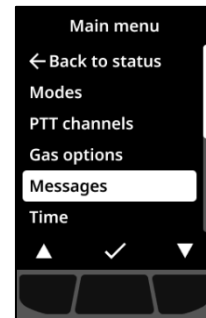
6.1 USING MESSAGING

G8 supports two-way SMS messaging with Blackline Live. G8 can receive a maximum of 32 characters from a written message sent from a Blackline Live administrator. Messages of up to 16 characters can be sent from a device.

6.1.1 VIEWING MESSAGES RECEIVED FROM BLACKLINE LIVE

To view messages:

1. From the Status screen, press the center button to open G8's Main menu.



2. Using the left and right buttons, scroll through the menu, then select **Messages** by pressing the center button.

The **Messages** menu opens.



3. Using the left and right buttons, scroll through the menu, then select **Message inbox** by pressing the center button.

The **Messages** list opens.



4. Using the left and right buttons, scroll through the menu, then select a message by pressing the center button.

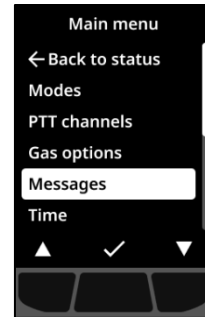
6.1.2 SENDING MESSAGES TO BLACKLINE LIVE

To send a pre-programmed message:

1. From the Status screen, press the center button to open G8's Main menu.

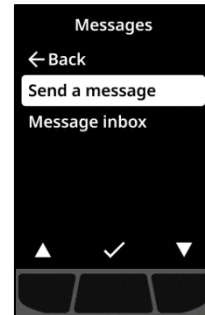
2. Using the left and right buttons, scroll through the menu, then select **Messages** by pressing the center button.

The Messages menu opens.

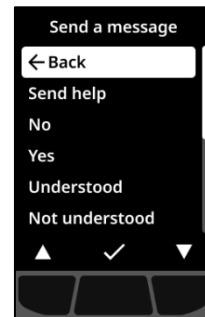


3. Using the left and right buttons, scroll through the menu, then select **Send a message** by pressing the center button.

The Messages list opens.



4. Using the left and right buttons, scroll through the list, then select a pre-programmed message. To send the message press the center button.

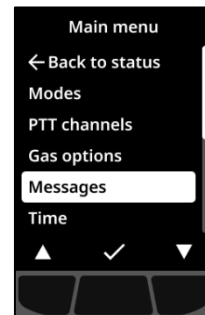


To send a custom message:

1. From the Status screen, press the center button to open G8's Main Menu.

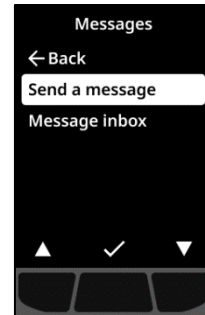
2. Using the left and right buttons, scroll through the menu, then select **Messages** by pressing the center button.

The Messages menu opens.



3. Using the left and right buttons, scroll through the menu, then select **Send a message** by pressing the center button.

The Messages list opens.

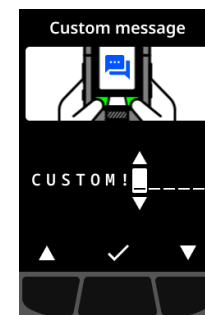


4. Using the left and right buttons, scroll through the list, then select ***Create custom*** by pressing the center button.

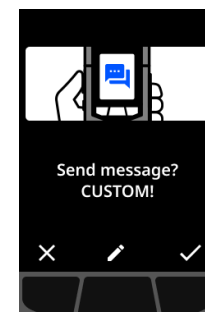
The custom message screen opens.



5. Use the left and right buttons to select characters, pressing the center button to navigate between characters.
6. Press the center button twice to send the message.



7. Select **Yes** to confirm that you want to send the message. Select **Edit** to make changes to the message entered. Select **No** to cancel the workflow and return to the Messages menu.



6.2 PUSH-TO-TALK (PTT)

G8 includes a dedicated PTT button.

If your G8 has a push-to-talk (PTT) service plan and PTT enabled in its configuration profile, you can use this button to send and receive short voice messages, like a walkie-talkie.

When PTT is enabled, pushing this button lets you quickly send a message or launch the PTT Quick Access Menu to view channel information and adjust settings.



6.2.1 PTT REQUIREMENTS

To use Push-to-Talk (PTT), your G8 must meet the following requirements:

- **PTT service plan** — The device must be assigned a PTT service plan through Blackline Live.
- **Configuration profile** — PTT must be enabled in the device's configuration profile.
- **Cellular connection** — G8 must be connected to the cellular network to send or receive PTT messages.

6.2.2 PTT LIMITATIONS

PTT has the following limitations:

- PTT cannot be used when an operational, low-, or high-urgency notification is sounding or unmuted.
- PTT cannot be used while the device is performing a compliance operation, such as a bump test, calibration, or pump block test.
- Only one device can transmit on a single channel at a time. Users must take turns sending messages.
- PTT cannot be used when tuned to Receive Only. For more information on channel types, see section 8.3.5.

6.2.3 PTT MESSAGING

PTT messaging lets you use your device like a walkie-talkie, sending short voice messages and receiving them from other G8 users on the same channel.

Sending a PTT Message

1. Press and hold the PTT button. The device beeps once when it is ready.
2. Speak clearly into the microphone. A green banner displays while the message is transmitting.
3. Release the PTT button when finished speaking.

Messages can be up to 30 seconds long. The device plays a short tone when the message ends.

During events, the *Sending* banner covers all other banners until the PTT button is released.

PTT Sending Errors

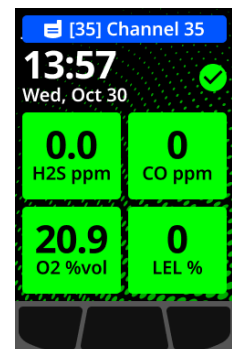
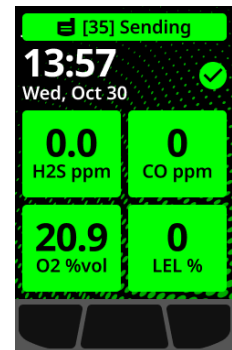
If the PTT message is not successfully received, G8 displays one of the following error messages:

- **Poor signal:** Yellow banner with a low-signal icon.
- **No signal:** A yellow banner displays No PTT network. Holding the PTT button shows a full-screen *PTT unavailable* message.
- **Receive only channel:** An error screen displays and tone plays when trying to send on this channel.
- **PTT not enabled:** An error message displays to inform you *Push to talk is not enabled on this device*.

Receiving a PTT Message

- G8 beeps twice to indicate an incoming PTT message. A blue banner displays with the channel and sender information (name, employee ID, or unit ID).
- Listen to the message as it plays.
- When the message ends, the device beeps once, and the banner disappears. The message does not interrupt your current screen or task.

During events, the *Receiving* banner covers all other banners until the message ends.



PTT Receiving Errors

If receiving a PTT message is unsuccessful, G8 displays the following error message:

Poor signal: Yellow banner with low-signal icon displays while receiving a PTT message.

6.2.4 ALTERNATE USES OF THE PTT BUTTON

If PTT is not enabled on your G8, the PTT button may be configured for other functions. In these cases, PTT messaging is unavailable.

- **Silent SOS** — Pressing the PTT button can trigger a Silent SOS alert.
- **Early check-in** — Pressing the PTT button can send an early check-in.
- **Acknowledge pending alarms** — The PTT button can acknowledge pending notifications such as no-motion, fall detected, or check-in reminders.

6.2.5 PTT CHANNEL MANAGEMENT

Accessing PTT Options

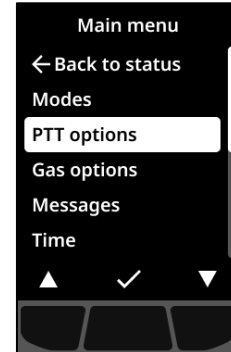
You can access PTT Options from either the Quick Access menu or the Main menu.

To access PTT from the Quick Access menu:

1. From the Status screen, push the left or right button and scroll to the PTT Quick Access menu.
2. Press the center button once to view the current PTT channel.
3. Press and hold the center button to view **PTT options**.

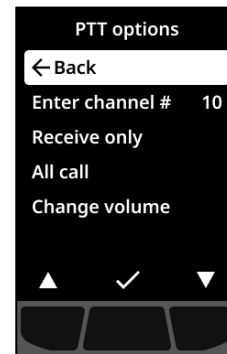
To access PTT from the Main menu:

1. Press the center button to open the Main menu.
2. Scroll to **PTT options** and press the center button.



PTT Menu Options

- Enter channel #
- Receive only
- All call
- Change volume



Changing PTT Channels

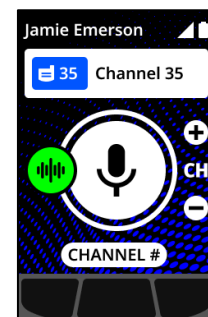
PTT channels let you control who you can send and receive messages with.

Available PTT channels are:

- **Channels 00–99** — Standard channels for everyday use. When using a specific channel, you can only communicate with devices on the same channel and receive transmissions from All call.
- **Receive only** — Receives transmissions from All call but cannot transmit to other devices.
- **All call** — Transmits to all PTT devices in your organization and only receives transmissions sent to All call. Recommended for supervisors or managers.

To view and change your PTT channel:

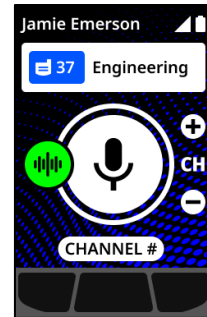
1. Press the side + or side – button to open the PTT channel widget and view your current channel.



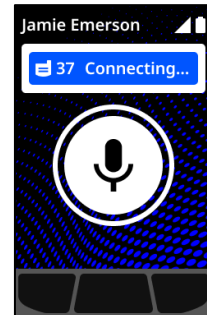
2. Press the side + or side – button again to cycle through channels. The PTT widget updates with each selection.

Channels progress in this order:

00–99 > All call > Receive only > back to 00.

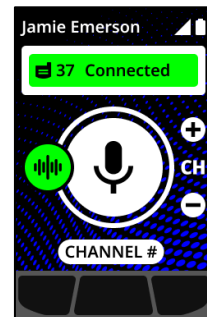


3. Stop on the desired channel for 2.5 seconds. G8 tries to connect to the selected channel. The PTT widget turns blue and shows **Connecting**.



Once connected, the widget turns green, shows **Connected**, and plays a confirmation tone.

If no change is made, the widget disappears after 2.5 seconds, while remaining on the current channel.



Manually Entering a Channel

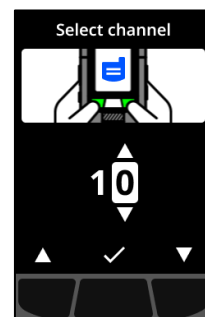
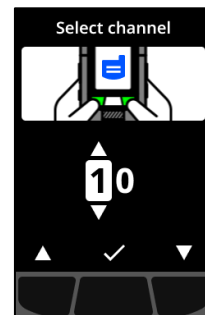
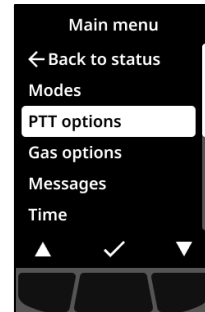
You can enter a specific channel number without scrolling through all channels.

To change the channel via the Quick Access menu:

4. Press the center button in the Quick Access menu to open Enter channel #, then proceed to step 4 below.

To change the channel via the Main menu:

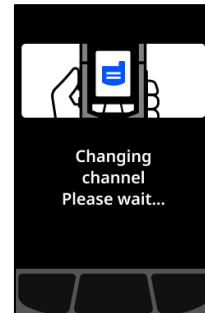
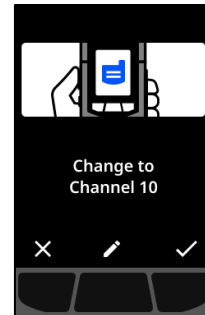
1. From the Status screen, press the center button to open G8's Main menu.
2. Using the left and right buttons, scroll through the menu, then select **PTT options** by pressing the center button.
The PTT options menu opens.
3. Using the left and right buttons, scroll through the menu, then select **Enter channel #** by pressing the center button.
4. Use the left and right buttons to select the first digit of your channel, then press the center button to confirm.
5. Use the left and right buttons to select the second digit of your channel, then press the center button confirm.



6. Select **Yes** by pressing the right button to confirm and change G8's PTT channel.

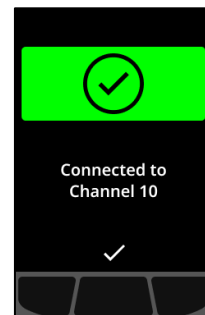
If you made a mistake, press the center button to select **Edit** and change the channel number.

Press the left button to cancel the change and return to the **PTT options** menu.



The channel selected displays on G8's screen.

NOTE: Quick channel change is available only for numbered channels (00–99), not All call or Receive only.



To change the PTT channel to Receive only or All call:

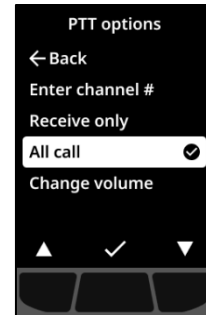
1. From the Status screen, press the center button to open G8's Main menu.

2. Use the left and right buttons to scroll through the menu, then select **PTT options** by pressing the center button.

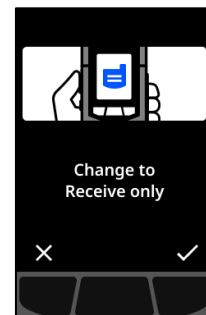
The PTT options menu opens.



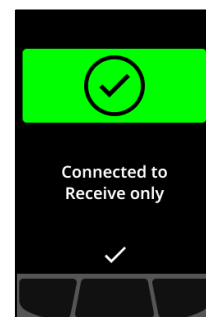
3. Scroll through the menu using the left and right buttons, then select **Receive only** or **All call** by pressing the center button.



4. Press the right button to confirm the change to G8's channel. Press the left button to cancel the change and return to the **PTT options** menu.



The channel selected displays on the G8 screen.

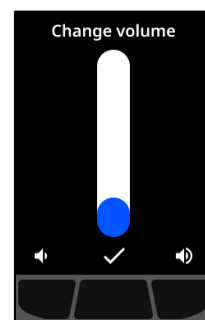
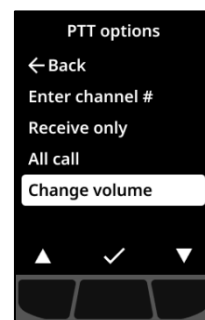
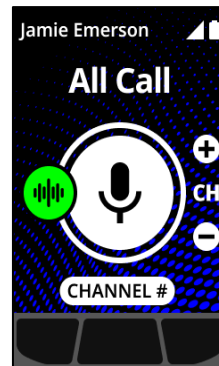


6.3 CHANGING PTT VOLUME

You can change the volume of incoming PTT messages from either the Quick Access menu or the PTT options menu. Changing the PTT volume does not affect G8's notification sounds.

To change PTT volume from the Quick Access menu:

1. From the Status screen, push the left or right button and scroll to the PTT Quick Access menu.
2. Press and hold the center button to open the PTT options menu.
3. Using the right button, scroll to **Change volume** and press the center button to select it.
4. Use the left and right buttons to set the desired PTT volume level, then press the center button to save.



From the Main Menu

5. From the Status screen, press the center button to open G8's Main menu.
6. Use the left and right buttons to scroll through the menu, then select **PTT options** by pressing the center button. The PTT options menu opens.
7. Select **Change volume**.
8. Use the left and right buttons to set the desired volume level, then press the center button to save.

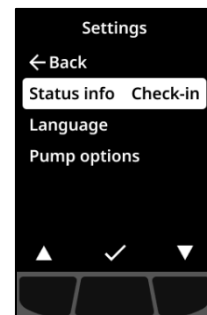
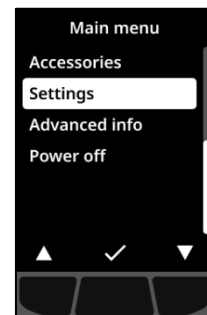
7 DEVICE SETTINGS

7.1 ACCESSING DEVICE SETTINGS FOR G8

The G8 Device settings menu allows you to access device information (read only), overwrite certain configuration profile defaults (language), and perform advanced operations.

To access the Device settings menu:

1. From the Status screen, press the center button to open G8's Main menu.
2. Using the left and right buttons, scroll through the menu, then select **Settings** by pressing the center button.



The Device settings menu opens.

7.2 STATUS INFO

G8 can display either the check-in timer or date on the Status screen.

By default, G8 displays the local time and date. If your G8 fleet is configured with the check-in timer enabled, the screen displays the check-in timer.

7.3 LANGUAGES

Use the Languages option to view and update your device's language settings. Available languages include:

- English
- Français (France)
- Español (Spain)
- Deutsch
- Italiano
- Nederlands
- Português (Brazilian)

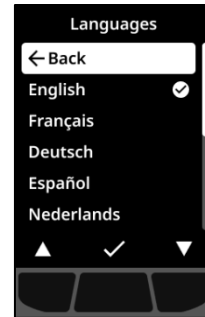
To view and update your device's language:

1. Using the left and right buttons, scroll through the Device settings menu, then select **Languages** by pressing the center button.

The Languages screen opens, displaying your device's available language settings. Your device's active language is flagged with a checkmark.



2. Using the left and right buttons, scroll through the Languages options, then press the center button to select a new primary language for your device.
3. To exit to the Device settings menu, scroll to **Back**, then select it by pressing the center button.



7.4 PUMP OPTIONS MENU

You can access pump options from the Settings menu or by holding the center button while in the Modes Quick Access menu.

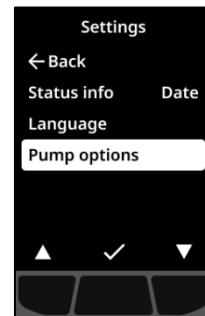
7.4.1 CONFIGURING THE SAMPLE TIMER

For more information on the sample timer, see section 7.11.

To enable the sample timer:

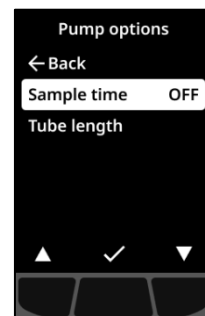
1. Using the left and right buttons, scroll through the Device settings menu, then select **Pump options** by pressing the center button.

The Pump options menu opens, displaying your device's available settings.



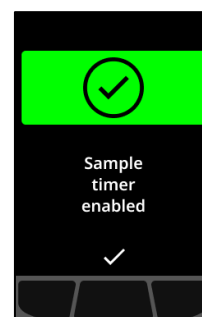
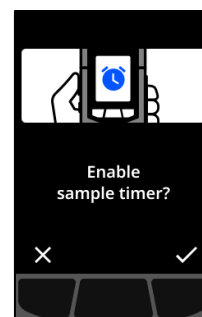
2. Using the left and right buttons, scroll through the menu, then select **Sample time** by pressing the center button.

The **Pump options** menu displays the item's current selected setting (ON or OFF).



3. Select **Yes** to confirm the update.

Select **No** to cancel the workflow and return to the Pump options menu.



7.4.2 CONFIGURING TUBE (HOSE) LENGTH

Tube (hose) length describes the length of the tubing attached to the G8 pump cartridge. This value is customizable from the pump options menu, and factors in to sample time.

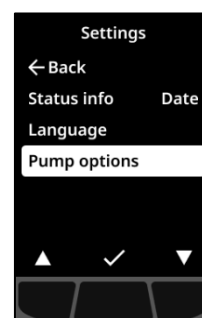
G8's multi-gas pump cartridge supports maximum tube lengths of:

- 100 ft of 0.188" diameter tube (30.2m x 4.78mm) **OR**
- 50 ft of 0.125" diameter tube (15.25m x 3.17mm).

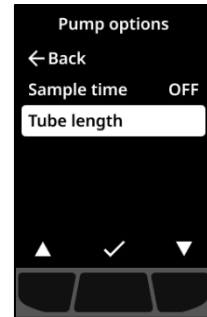
To configure tubing (hose) length:

1. Using the left and right buttons, scroll through the Device settings menu, then select **Pump options** by pressing the center button.

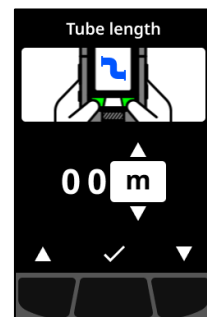
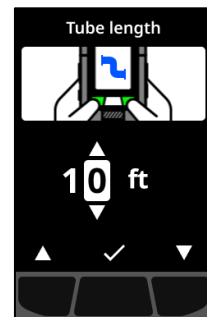
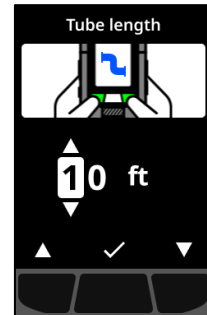
The Pump options menu opens, displaying your device's available settings.



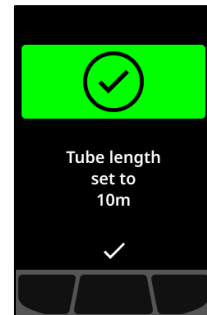
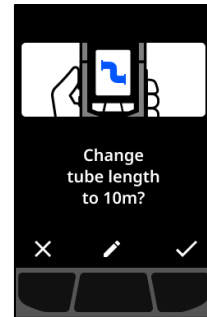
2. Using the left and right buttons, scroll through the menu, then select **Tube length** by pressing the center button.



3. On the Tube length screen, use the left and right buttons to set the length fields, pressing the center button to navigate between fields:
 - Select the first digit
 - Select the second digit
 - Set unit (m or ft)



4. Select **Yes** to confirm. Select **Edit** to make changes to the tube length entered. Select **No** to cancel the workflow and return to the Pump options menu.



8 ADVANCED DEVICE INFORMATION

The Advanced information menu provides detailed information that can be used to quickly troubleshoot your device. The G8 Advanced info menu allows you to access advanced information (read only) including:

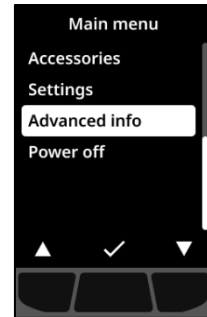
- Device info
- User info
- GPS location
- Beacons
- Communications info

8.1 ACCESSING THE ADVANCED INFO MENU

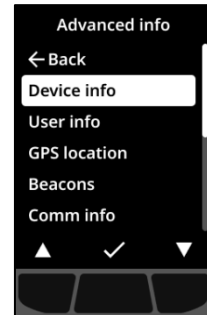
To access the Advanced info menu:

1. From the Status screen, press the center button to open G8's Main menu.

2. Using the left and right buttons, scroll through the menu, then select **Advanced info** by pressing the center button.



The Advanced info menu opens.



8.2 DEVICE INFO

Use the Device info option to view your device's hardware and activation records, including:

- Unit ID
- Region
- Activation code
- Firmware version
- Build version
- Cartridge ID
- Cartridge version
- Battery level

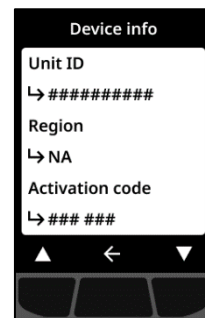
To view device information:

1. Using the left and right buttons, scroll through the Advanced info menu and select **Device info** by pressing the center button.

The Device info screen opens, displaying your device's settings.



2. Use the left and right buttons to scroll through the Device info screen.
3. To return to the Advanced info menu, press the center button.



8.3 USER INFO

Use the User info option to view your device's assigned user. The assigned user is configurable in Blackline Live. For more information on updating a device user, contact your Blackline Live administrator.

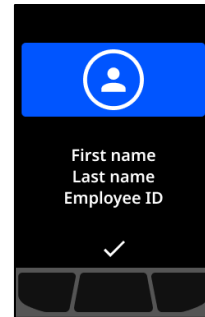
To view device user information:

1. Using the left and right buttons, scroll through the Advanced info menu, then select **User info** by pressing the center button.

The User info screen opens, displaying your device's assigned user.



2. To return to the Advanced info menu, press the center button.



8.4 GPS LOCATION

Use the GPS location info option to view information related to your device's recorded GPS location, including:

- Satellites
- Latitude
- Longitude
- Signal to noise ratio (SNR) (dB)
- Time (UTC)

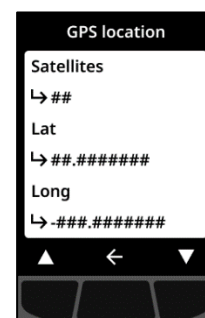
To view GPS location information:

1. Using the left and right buttons, scroll through the Advanced info menu, then select **GPS location** by pressing the center button.

The GPS location info screen opens.



2. To return to the Advanced info menu, press the center button



8.5 BEACONS INFO

Use the Beacon info options to view information related to your device's location beacon communications, including:

- Beacon ID
- Power
- RSSI (Received Signal Strength Indication)
- Battery

The Beacon information menu provides advanced information that can be used to quickly troubleshoot your device or to support the deployment of Blackline Safety's indoor location beacons.

To view beacon information:

1. Using the left and right buttons, scroll through the Advanced info menu, then select **Beacon info** by pressing the center button.

The Beacon info screen opens, displaying the beacons your device has communicated with.

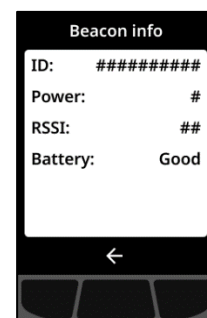


2. To open the screen for a specific beacon, scroll to the beacon and press the center button.

The Beacon info screen opens, displaying information related to the selected beacon.



3. To return to the Advanced info menu, press the center button.



8.6 COMMUNICATIONS (COMM) INFO

Use the Communications info option to view information related to your device's cellular communications, including:

- State (Online or Offline)
- Signal strength (last sync)
- Cell provider/carrier (last sync)
- Network type (last sync)

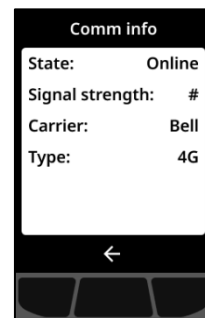
To view Communication information:

1. Using the left and right buttons, scroll through the Advanced info menu, then select **Comm info** by pressing the center button.

The Communication info screen opens, displaying your device's communication settings



2. Use the left and right buttons to scroll through the device info screen.
3. To return to the Advanced info menu, press the center button.



9 FIRMWARE UPDATES

To offer new features, Blackline Safety periodically releases over-the-air (OTA) firmware updates. OTA firmware updates are only available when G8 is on a cellular network. Firmware updates have two steps:

- Automatic download
- Automatic installation

9.1 AUTOMATIC DOWNLOAD

When a firmware update is released, G8 gradually downloads the update whenever it is on and connected to a cellular network. G8 is ready to install the firmware update when the download is complete. The download does not interfere with normal G8 use.

9.2 AUTOMATIC INSTALLATION

The completely downloaded update is automatically installed the next time G8 is powered on. This installation adds 30 to 60 seconds to the start-up sequence.

When the green light is solid and G8 is connected, it automatically powers down. The cartridge flashes blue and yellow lights. The device becomes unresponsive. After 30 to 60 seconds, G8 powers back up and displays the new firmware version it has installed.

Once the update complete, G8 continues to monitor as usual.

 **WARNING:** G8 does NOT monitor for safety during the firmware update installation process.

Specific information about new updates can be found on the [Notifications](#) page on the Blackline Support site. If you have questions, please contact the Blackline Safety *Technical Support* team.



10 SUPPORT

10.1 LEARN MORE

Visit support.blacklinesafety.com to find support and training materials for G8.

10.2 TECHNICAL SUPPORT

Contact our Technical Support team for assistance.

North America (24 hours)

Toll Free: 1-877-869-7212 | support@blacklinesafety.com

United Kingdom (8am-5pm GMT)

+44 1787 222684 | eusupport@blacklinesafety.com

International (24 hours)

+1-403-451-0327 | support@blacklinesafety.com

11 SPECIFICATIONS

11.1 DETAILED SPECIFICATIONS

DEVICE SPECIFICATIONS	
MATERIAL	Polycarbonate over molded with a static dissipative thermoplastic elastomer (TPE)
SIZE & WEIGHT	G8, No Cartridge, with Belt Clip Size: 106 mm x 65 mm x 42 mm (4.17" x 2.56" x 1.65") Weight: 182 g (6.42 oz) G8 with Standard Cartridge Size: 122 mm x 65 mm x 42 mm (4.8" x 2.56" x 1.65") Weight: 207 g (7.30 oz) G8 with Single-gas Cartridge Size: 127 mm x 65 mm x 42 mm (5.0" x 2.56" x 1.65") Weight: 212 g (7.48 oz) G8 with Multi-gas Diffusion Cartridge Size: 149 mm x 66 mm x 42 mm (5.87" x 2.6" x 1.65") Weight: 247 g (8.71 oz) G8 with Multi-gas Pumped Cartridge Size: 149 mm x 66 mm x 42 mm (5.87" x 2.6" x 1.65") Weight: 265 g (9.35 oz) G8 with PowerPack (with Belt Clip) Size: 106 mm x 65 mm x 55 mm (4.17" x 2.56" x 2.17") Weight: 264 g (9.31 oz)
TEMPERATURE	Storage temperature: -30°C to 60°C (-22°F to 140°F) Operating temperature: -20°C to 55°C (-4°F to 131°F) Charging temperature: 0°C to 40°C (32°F to 40°F)
HUMIDITY	15 to 90% RH Non-condensing
DATA	The default location schedule on G8 is every five minutes. Then, under either of the following scenarios: - if "10-second locations and gas data" is enabled, OR - if any sensor is reading above the extended blanking range The device records location and sensor readings every 10 seconds and presents this data in the Analytics reports.
APPROVALS/ STANDARDS	RoHS, CE Canada & USA: Class I Division 1 Group A,B,C,D,T4; Class I Zone 0 AEx ia IIC T4; Ex ia IIC T4 Ga IECEx: Ex ia IIC T4 Ga ATEX: Ex ia IIC T4 Ga LEL Performance: CSA C22.2 No.152; ISA 12.13.01; 60079-29-1
SOUND LEVELS	Speaker sound pressure level: ~95 dB @ 30 cm (~95 dB @ 11.8")
IP RATING	IP67 certified
SENSORS	Cartridge selection supports 0-4 sensors; up to 5 gases

WARRANTY	G8: 4-year warranty on the base unit. Cartridges: 4-year warranty for manufacturing and workmanship. Sensors: 4-year warranty on sensors. Individual sensor warranties vary by sensor type. Check the Sensor Warranties page.
USER INTERFACE	
DISPLAY	240 x 320 pixel graphical, high contrast, 6-bit color liquid crystal display with front lighting
BUTTONS	Menu system: Driven by three-button keypad and side up/down keys PTT button: For easy Push-to-Talk Use Flashlight button
SOS LATCH	Send SOS alert
LANGUAGES	Multi-language support: EN, FR, ES, DE, IT, NL, PT
CONNECTIVITY	
LOCATION AWARENESS	Multi-constellation Support (GPS, Galileo GLONASS, QZSS, BeiDou) Dual-band (L1 and L5) GNSS receiver
CELLULAR	EU/AZ Variant: 4G LTE bands: 12,13,18,19,20,26,5,8,28,2,3,1,4,7,38,39,40,41 3G UMTS bands: 5,8,1,2 2G GSM bands: 5,8,3,2 NA Variant: 4G LTE bands: 71,12,13,14,5,2,66,4
BLUETOOTH	Complies with Bluetooth® Core Specification version 4.2 including BR/EDR/Bluetooth® LE
NFC	Tag Reading 13.56 MHz
WIRELESS UPDATES	Over-the-air device configurations Over-the-air firmware upgrades
OPTIONAL PTT	Send and receive voice messages to other G8 devices
OPTIONAL RSM	Two-way accessory
BATTERY AND CHARGING	
RECHARGEABLE BATTERY	Li-ion battery: 1350 mAh Li-ion
CHARGE TIME	5 hours
BATTERY LIFE	Battery life in diffusion mode: 18 hours at 20°C (68°F) with LEL-(IR or MPS), H2S, CO and O2 cartridge, under normal connectivity conditions.

11.2 GAS SENSOR SPECIFICATIONS

GAS CARTRIDGE AND SENSORS			
GAS	SENSOR TYPE	RANGE	RESOLUTION
AMMONIA (NH ₃)	Electrochemical	0–100 ppm	0.1 ppm
CARBON DIOXIDE (CO ₂)	NDIR	0–50,000 ppm	50 ppm
CARBON MONOXIDE (CO)	Electrochemical	0–500 ppm	1 ppm
CHLORINE (Cl ₂) ¹	Electrochemical	0–20 ppm	0.1 ppm
CHLORINE DIOXIDE (ClO ₂) ¹	Electrochemical	0–2 ppm	0.01 ppm
COSH (CO & H ₂ S)	Electrochemical	0–500 ppm CO and 0–200 ppm H ₂ S	1 ppm CO and 0.1 ppm H ₂ S
HIGH-RANGE AMMONIA (NH ₃)	Electrochemical	0–500 ppm	1 ppm
HIGH-RANGE CARBON MONOXIDE (CO)	Electrochemical	0–2000 ppm	1 ppm
HIGH-RANGE HYDROGEN SULFIDE (H ₂ S)	Electrochemical	0–500 ppm	0.5 ppm
HYDROGEN (H ₂) (OUTSIDE NORTH AMERICA)	Electrochemical	0–40,000 ppm	1% LEL (400 ppm H ₂)
HYDROGEN CYANIDE (HCN)	Electrochemical	0–30 ppm	0.1 ppm
HYDROGEN FLUORIDE (HF) ¹	Electrochemical	0–10 ppm	0.1 ppm
HYDROGEN RESISTANT CARBON MONOXIDE (CO-H)	Electrochemical	0–500 ppm	1 ppm
HYDROGEN SULFIDE (H ₂ S)	Electrochemical	0–100 ppm	0.1 ppm
LEL - INFRARED (LEL-IR)	NDIR	0–100% LEL	1% LEL
LEL- MOLECULAR PROPERTY SPECTROMETER (LEL-MPS) ³	MPS	0–100% LEL	1% LEL
NITROGEN DIOXIDE (NO ₂)	Electrochemical	0–50 ppm	0.1 ppm
OXYGEN (O ₂)	Pumped electrochemical	0–25% vol	0.1% vol
OZONE (O ₃) ¹	Electrochemical	0.1 ppm	0.1 ppm
PHOTOIONIZATION (PID)	PID	0–4,000 ppm	Variable ² , lowest 0.1 ppm
SULFUR DIOXIDE (SO ₂)	Electrochemical	0–100 ppm	0.1 ppm

¹This sensor is not compatible with the pump cartridge.

²Dependent on correction factor.

³Operating pressure: 80 to 120 kPa (11.6 psi to 17.4 psi).

NOTE: Check with Blackline for approval status. Specifications subject to change.

12 LEGAL NOTICES AND CERTIFICATIONS

12.1 LEGAL NOTICES

Information in this document is subject to change without notice. This document is provided “as is” and Blackline Safety Corp (“Blackline”) and its affiliated companies and partners assume no responsibility for any typographical, technical or other inaccuracies in this document. Blackline reserves the right to periodically change information that is contained in this document. However, Blackline makes no commitment to provide any such changes, updates, enhancements or other additions to this document to you in a timely manner or at all.

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The Blackline, Alert, Locate, Respond, families of related marks, images and symbols, including Blackline, G8, LiveResponse, Loner, Loner IS, Loner IS+, Loner M6, Loner M6i, Loner Mobile, Loner 900, and SureSafe are the exclusive properties and trademarks of Blackline Safety Corp. All other brands, product names, company names, trademarks and service marks are the properties of their respective owners.

Warranty

Your G8 device is warranted against defects in materials and workmanship for up to two years from date of purchase. For further details regarding your Blackline warranty, please refer to your terms and conditions of service.

FCC Compliance

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. 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 further assistance.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Note: the grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment. RF exposure was tested with the supplied belt clip. Use of third-party accessories may result in non-compliant exposure.

Industry Canada Compliance

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

- (1) RF exposure was tested with the supplied belt clip. Use of third-party accessories may result in non-compliant exposure.

Notification d'Industrie Canada

Ce dispositif est conforme au(x) format(s) RSS libre(s) d'Industrie Canada. Son fonctionnement est assujéti aux deux conditions suivantes: (1) Cet appareil ne peut causer d'interférences nuisibles, et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant provoquer un mauvais fonctionnement du dispositif.

L'exposition RF a été testée avec le clip de ceinture fourni.

L'utilisation d'accessoires tiers peut entraîner une exposition non conforme.

Warning

Electrical equipment may be hazardous if misused. Operation of this product, or similar products, must always be supervised by an adult. Do not allow children access to the interior of any electrical product and do not permit them to handle any cables.

Do not operate or store Blackline products outside their specified operating or storage temperatures. Consult the specifications section for more information.

Blackline products contain a non-replaceable internal lithium-ion battery pack. Seek advice from your local electronics recycling authority regarding the disposal of your device. Do not dispose Blackline products in your household trash.

12.2 INTRINSICALLY SAFE CERTIFICATION

Intrinsically Safe

This device is certified Intrinsically Safe for use in Class I Division 1 Groups A,B,C,D T4; Ex ia IIC T4 Ga; Class I Zone 0 AEx ia Group IIC T4 Ga hazardous (classified) locations.

CSA & UL: MC267256

Class I Division 1 Groups A,B,C,D; T4

Class I Zone 0 AEx ia IIC T4 Ga

CAN/CSA C22.2 No. 60079

Ex ia IIC T4 Ga



CSA 25CA80275630X: CSANe 25ATEX1228X: IECEx CSA 25.0092X

IEC 60079; EN 60079

G8: Ex ia IIC T4 Ga



-20°C ≤ Tamb ≤ +55°C

Base unit P/N "G8C-##-NA2" and PN "G8C-##EU2" where ## is the mobile connectivity provider.

Gas cartridge: Standard P/N "Z" | Single-gas P/N "S-#" | Multi-gas P/N "Q-###" | Pump Module P/N "p-####" (# = Electro chemical sensor identifier or "X" indicating no sensor).

Caution

For safety reasons this equipment must be operated and serviced by qualified personnel only. High off-scale readings may indicate explosive concentration.

The external battery pack and remote speaker microphone shall only be changed or detached in non-hazardous locations.

The equipment shall only be charged in 0 to 40°C ambient.

The equipment shall only be charged in non-hazardous locations using a charger specifically supplied for use with the unit, approved as SELV or Class 2 equipment against CSA/UL 60950, CSA/UL 61010-1 or CSA 223/UL 1310 standard. The nominal voltage for the charger shall be 5Vdc and the maximum voltage and current from the charger shall not exceed 6Vdc (Um = 6.0V) and 2A respectively.

The equipment to be assessed as monitoring device only and not intended to provide an indication, alarm, or other output function per IEC/CSA/UL 60079-29-1.

Consult with your organization's safety professional for further information regarding the topic of intrinsic safety and any policies, procedures, facilities, or locations within facilities that may be related to intrinsic safety.

Sécurité intrinsèque

Cet appareil est certifié à sécurité intrinsèque pour une utilisation dans les emplacements dangereux (classés) de classe I, division 1, groupes A, B, C, D T4 ; Ex ia IIC T4 Ga ; classe I, zone 0 AEx ia, groupe IIC T4 Ga.

Standards:

CAN/CSA C22.2 No. 60079-0: 2015

CAN/CSA C22.2 No. 60079-11: 2014

CAN/CSA C22.2 No. 60079-29-1:2017

CAN/CSA C22.2 No. 62368-1:19

UL 60079-0: Sixth Edition

UL 60079-11: Sixth Edition

UL 60079-29-1:2019

UL 62638-1: Third Edition

EN 60079-0: 2012/A11:2 013

EN 60079-11: 2012

IEC 60079-0: 2011 Sixth Edition

IEC 60079-11: 2023 Seventh Edition

IEC 62638-1: 2023

Attention

Pour des raisons de sécurité, cet équipement doit être utilisé, entretenu et réparé uniquement par un personnel qualifié. Des lectures supérieures à l'échelle peuvent indiquer des concentration explosives.

Le bloc-batterie externe et le microphone haut-parleur à distance ne doivent être changés ou détachés que dans des endroits non dangereux.

L'équipement ne doit être chargé que dans un environnement dont la température est comprise entre 0 et 40 °C.

L'équipement ne doit être chargé que dans des endroits non dangereux à l'aide d'un chargeur spécialement fourni pour être utilisé avec l'appareil, homologué comme équipement SELV ou de classe 2 conformément aux normes CSA/UL 60950, CSA/UL 61010-1 ou CSA 223/UL 1310. La tension nominale du chargeur doit être de 5 Vcc et la tension et le courant maximaux du chargeur ne doivent pas dépasser respectivement 6 Vcc (Um = 6,0 V) et 2 A.

L'équipement doit être évalué uniquement comme dispositif de surveillance et n'est pas destiné à fournir une indication, une alarme ou toute autre fonction de sortie conformément à la norme CEI/CSA/UL 60079-29-1.

S'il vous plaît consulter professionnel de la sécurité de votre organisation pour de plus amples informations concernant le sujet de la sécurité intrinsèque et les politiques, les procédures, les installations, ou emplacements au sein des établissements qui peuvent être liés à la sécurité intrinsèque.

12.3 LEL FUNCTIONAL SAFETY

Outputs and alarms are described. More detailed information on each alarm can be found in the manual. The alarm outputs on the cartridge are the highest priority and must be followed. Cartridge notifications have precedence over any other notifications from the device.

Device Start-up Self-Test

On device startup, the device performs a self-test sequence which exercises the device lights and audio. Verify functionality of device outputs by confirming that all lights turn on and audio can be heard.

Calibration Protection

When a calibration is started, the cartridge suppresses LEL high-gas detection and notifications, and the yellow light flashes every 30 seconds. The maximum amount of time the cartridge can stay in the calibration mode is minutes. When calibration finishes, or 5 minutes expires, the yellow light stops flashing.

Calibration Sequence

Monitor the gas readings on the screen during calibration and verify that the concentrations reach the target gas concentrations (50% LEL for LEL).

Pump Operation

When the pump is started or stopped, a beep will sound to indicate the event. While the pump is in operation, the yellow light flashes every 30 seconds. Manually verify the pump is in operation by listening for the aspiration sound.

Muting

Alarms on the device can be muted by holding the Left/Right buttons for 3 seconds. An alarm will not be muted if the buttons are not held down for the entire 3-second duration.

Gas Alarm Muting

LEL high gas notifications can be muted for 60 seconds every 2 minutes when the gas threshold exceeds 60% LEL. Additional muting requests are ignored, and the audible and visual alert patterns continue.

Non-Gas Alarm Muting

Non gas alarms such as low battery can be muted using the standard muting procedure.

Gas Detection

T90 for LEL gas detection will be under 50 seconds in the worst case.

Secondary Modes

If a secondary mode is entered when LEL notifications are disabled, the yellow light will flash every 30 seconds to indicate that gas notifications are being suppressed.

MPS Automatic Zeroing

G8 prompts the user to acknowledge that it is performing an automatic zeroing on startup. If you do not acknowledge the prompt by pressing OK within 15 seconds, the device displays a sensor error notification.

Test Pattern

When G8 is performing an automatic assessment during calibration, the cartridge suppresses light operation for a maximum of 5 seconds. During this time, only the audible assessment is performed.

Shutdown

To initiate shutdown, press the power button for 3 seconds. The device beeps once and double flash the yellow lights. When the green light is completely off, the device is not detecting gas.

Standards

CAN/CSA C22.2 No. 60079-29-1:2017

UL 60079-29-1:2019

Low Battery Fault States and Output

Indicated by yellow light flashing and audible by piezo. Standard warning pattern applied on both. Indicator activates within 120s of battery being low. The device runs for at least 10 minutes in low-battery mode.

Tous les résultats et alarmes sont décrits. Des informations plus détaillées sur chaque alarme se trouvent dans le manuel. Les sorties d'alarme de la cartouche sont prioritaires et doivent être prises en compte. Les notifications de la cartouche ont la priorité sur toutes les autres notifications de l'appareil.

Auto-test de démarrage du dispositif

Lors du démarrage du dispositif, celui-ci effectue une séquence d'auto-test qui met en service les LED et l'audio du dispositif. Vérifiez le bon fonctionnement de toutes les sorties du dispositif.

Protection de l'étalonnage

Lorsqu'un étalonnage est lancé, la cartouche supprimera la détection et les alertes de gaz LEL élevé, et la lumière jaune clignotera toutes les 30 secondes.

La durée maximale pendant laquelle la cartouche peut rester en mode d'étalonnage est de 5 minutes. Lorsque l'étalonnage est terminé, ou que 5 minutes se sont écoulées, la lumière jaune cessera de clignoter.

Séquence d'étalonnage

Surveillez les lectures de gaz à l'écran pendant l'étalonnage et vérifiez que les concentrations atteignent les concentrations cibles de gaz (50 % LEL pour LEL).

Fonctionnement de la pompe

Lorsque la pompe est mise en marche ou arrêtée, un bip sonore retentira pour indiquer l'événement. Pendant le fonctionnement de la pompe, la lumière jaune clignotera toutes les 30 secondes. Vérifiez manuellement que la pompe fonctionne en écoutant le son d'aspiration.

Mise en sourdine

Les alarmes de l'appareil peuvent être désactivées en maintenant les flèches haut/bas enfoncées pendant 3 secondes. L'alarme ne sera pas désactivée si les boutons ne sont pas maintenus enfoncés pendant ces 3 secondes.

Mise en sourdine de l'alarme de gaz

Les alertes de gaz LEL élevé peuvent être mises en sourdine pendant 60 secondes toutes les 2 minutes lorsque le seuil de gaz dépasse 60 % LEL. Les demandes de mise en sourdine supplémentaires seront ignorées, et les modèles d'alerte sonore et visuelle continueront.

Désactivation des alarmes non liées au gaz

Les alarmes non liées au gaz, telles que les alarmes de batterie faible, peuvent être désactivées à l'aide de la procédure de désactivation standard.

Modes secondaires

Si un mode secondaire est activé lorsque les alertes LEL sont désactivées, la lumière jaune clignotera toutes les 30 secondes pour indiquer que les alertes de gaz sont supprimées.

Auto-zéro MPS

Le G8 demandera à l'utilisateur de reconnaître qu'il effectue un auto-zéro au démarrage. Si vous ne reconnaissez pas l'auto-zéro en appuyant sur OK dans les 15 secondes, le dispositif affichera une alerte d'erreur de capteur.

Motif de test

Lorsque le G8 effectue une évaluation automatique pendant l'étalonnage, la cartouche supprimera le fonctionnement de la lumière pendant un maximum de 5 secondes. Pendant ce temps, seule l'évaluation sonore sera effectuée.

Normes :

CAN/CSA C22.2 No. 60079-29-1:2017

UL 60079-29-1:2019

États de défaillance et sorties

Self-Test Failure: Errors including memory tests, sensor tests and watchdog tests are indicated by yellow light flashing and audible by piezo. Sensor Communication Failure: Indicated by yellow light flashing and audible by piezo. Standard warning pattern applied on both. Under Limit Detected: Indicated by yellow light flashing and audible by piezo.	Batterie faible : indiquée par le clignotement de la LED jaune et audible par le buzzer. Modèle d'avertissement standard appliqué aux deux. Échec de l'auto-test de mémoire : indiqué par le clignotement de la LED jaune et audible par le buzzer. Modèle d'avertissement standard appliqué aux deux. Échec de la communication du capteur : indiqué par le clignotement de la LED jaune et audible par le buzzer. Modèle d'avertissement standard appliqué aux deux. Détection sous la limite : indiquée par le clignotement de la LED jaune et audible par le buzzer. Modèle d'avertissement standard appliqué aux deux.
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