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EXO 8 is a cloud-connected area monitor that continuously measures gas and gamma concentrations in the ambient environment at sites, facilities, and fence lines. EXO activates notifications when concentrations of toxic and combustible gases or gamma radiation exceeds configured setpoints.

HARDWARE

EXO is available in two versions: EXO 8 (EX8N) and EXO 8 Gamma (EX8G). Both versions are available in Pump and Diffusion configurations, providing flexibility for different monitoring applications.

Pump

The Pump configuration can be used to remotely sample up to four confined spaces or locations.

Diffusion

The Diffusion configuration effectively monitors and measures ambient gas concentrations.
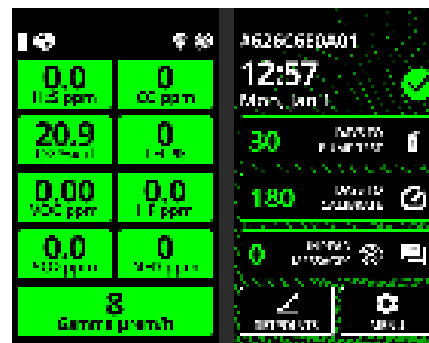
EXO 8 GAMMA

EXO 8 Gamma is equipped with a factory-installed gamma radiation sensor, which is compatible with both the pump and diffusion configurations. When the gamma sensor is installed, EXO 8 continuously measures both gas and gamma radiation concentrations in your environment.

NOTE: Gamma sensors are factory-installed only and cannot be installed post-purchase.

EXO 8 DISPLAY

The Home screen shows the current device status and event information through screen status and banner messages.

EXO's live readings screen displays real-time gas and gamma levels. EXO's dashboard screen displays alerts, calibration and bump due dates, and provides shortcuts to menu options, setpoints, and compliance operations.

POWERING ON EXO 8

To power on EXO:

1. Press and hold the power button for two seconds. EXO emits a chime, the top lights flash, the screen displays the active features, and the green connectivity light goes solid, indicating EXO is connected.

   If an **O₂ stabilizing** message displays on EXO's screen, it means EXO is not monitoring. Stabilization typically takes approximately 10 seconds but can take up to 20 minutes.

2. After you power on EXO and complete the startup sequence, EXO opens the main menu with the Setup wizard selected.

3. Press the center button to start the Setup wizard.

   EXO continues to monitor for gas and gamma during the Setup wizard. High and low urgency notifications, an SOS latch pull, or dangerous gas or gamma levels override the Setup wizard.

PLACING EXO 8

When placing EXO:

- Keep EXO upright and accessible.
- Do not hang EXO by its handle alone. Use the Hanging Mount Kit accessory.

USING EXO 8's MENU

Use EXO's menu to access functionality such as gas options, messages, settings, and advanced information.

There are two ways to open EXO's menu:

- Press the center button to open the main menu.
- From the Dashboard screen, use the left and right buttons to scroll, then select Menu by pressing the center button.

CHARGING EXO 8

Use any of the following EXO accessories to charge EXO:

- Trickle charger
- Solar panel
- Quick charger

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NOTIFICATIONS

EXO 8 communicates notifications using lights, sound, and an on-screen message specific to the event. You must acknowledge notifications and address the triggering conditions before you can clear the notifications from the device.

IMPORTANT: Follow your company's safety protocol for responding to notifications. For low and high urgency notifications, Blackline Safety recommends leaving the area.

GREEN LIGHT

A flashing connectivity light indicates that EXO is trying to establish a connection to Blackline Live and is not yet transmitting data.

A solid connectivity light indicates that EXO is connected to Blackline Live and is actively transmitting data.

BLUE LIGHT

The blue LiveResponse light lets you know that remote monitoring personnel are responding to an alert by following your organization's emergency protocol. When monitoring personnel have confirmed the safety of everyone in the area and resolved the alert, the blue LiveResponse light turns off.

YELLOW LIGHT

Yellow lights indicate two types of notifications. Both types of notifications include yellow flashing lights, sound, and an on-screen message specific to the event.

Operational:

- Triggered by routine and expected device operations.
- Local to your device; monitoring personnel are not notified.

Low urgency:

- Triggered by an unexpected condition that could pose a safety risk if not addressed in a timely manner.
- Local to your device; monitoring personnel are not notified.

RED LIGHT

A red flashing light at the top of your EXO device indicates a **High urgency** notification.

- High urgency notifications are triggered by events that require your immediate attention and action.
- If your organization is monitored, high urgency notifications are immediately communicated to monitoring personnel and automatically generate an alert in Blackline Live.

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To acknowledge and mute a notification:

Press and hold the left and right buttons at the same time to mute the notification and acknowledge the banner message.

NOTE: For continuous gas or gamma exposure, EXO unmutes itself after two minutes for low urgency notifications and one minute for high urgency notifications if detected gas or gamma levels have not returned to normal.

GAS SAMPLING

EXO 8 Pump has four inlets. When connected to tubing, the inlets allow a single EXO to monitor multiple remote areas. Inlets must be assigned before they are functional.

NOTE: When the gas expansion module is installed, the pump inlet does not need to be assigned.

To assign inlets:

1. Power on EXO, then and press the center button to open the Main menu.
2. Use the left, right, and center button to select **Gas options**.
3. Select **Inlet settings**. By default, the pump inlets (1-4) display as OFF.
4. Using a tube fitted with a quick connect coupling insert, attach the tube to the desired inlet.
5. Select **Inlet settings**, then select the inlet you connected the tube to in step 4.
6. Use the left, right, and center button to toggle the inlet to ON. This pump inlet is now functional.

Single gas sampling inlet

When one inlet is toggled on, EXO first purges for two minutes to clear out any gas from the sensors, then continuously draws air from the inlet.

This setup is best for confined-space entry, or any other situation where it is vital to continuously sample from a hazardous area.

Multi-gas sampling inlet

When multiple inlets are toggled on, EXO starts a sampling cycle. EXO cycles through each inlet by pulling in gas from one inlet at a time, then purging in between each of the samples. While EXO is purging itself, there are gaps in readings.

Due to these gaps in readings, a multiple-inlet sample setup is best used for long-term monitoring of remote areas.

IMPORTANT: If you start the pump while operating at temperatures of -20°C (-4°F) or lower, EXO generates a pump-blocked alarm that persists until the inlet warms up and begins operating normally. In a multiple inlet sampling cycle, the inlets do not have time to warm up. For temperatures below -20°C (-4°F), use only single-gas sampling.

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BUMP TESTING AND CALIBRATING

Bump testing and calibration verify that your device's gas sensors and notification indicators are functioning correctly.

NOTE: If you bump test or calibrate EXO 8 Diffusion in a windy environment, you must use the wind guard.

NOTE: Manual calibration is not required for the gamma sensor, as the sensor is factory calibrated.

To bump test or calibrate EXO:

1. Connect a gas cylinder to EXO's manual calibration inlet using calibration tubing.
2. From the Home screen, use the left and right buttons to scroll, then select **Days To Bump Test** or **Days To Calibrate**.

   Or, press the center button to display the Main menu. Select **Gas options**, and then select **Bump test** or **Calibration**.
3. Confirm your selection by selecting **Yes**. EXO initiates an audio/visual self test.
4. Follow the screen prompts to complete the bump test or calibration, ensuring that you select the sensors you want to test. You are prompted to bump test or calibrate until the selected sensors are tested.

LEARN MORE

Visit support.blacklinesafety.com to find support and training materials for EXO, including the comprehensive EXO Technical User Manual.

TECHNICAL SUPPORT

North America (24 hours)	**United Kingdom (8am-5pm GMT)**	**International (24 hours)**
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