

# Global Systems United

## CO<sub>2</sub> Monitoring User Guide

Thank you for placing your trust in us.

Prepared by Joseph Opal, Global Systems United, LLC



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## 1. Introduction to CO<sub>2</sub> Safety

Carbon dioxide (CO<sub>2</sub>) is a colorless, odorless gas that exists naturally in the air. While safe at normal atmospheric levels, it becomes hazardous in enclosed spaces when concentrations rise. Because CO<sub>2</sub> is heavier than air, it can settle in low-lying areas such as basements, storage rooms, or confined spaces. At high concentrations, CO<sub>2</sub> can displace oxygen and create a serious risk of suffocation.

A CO<sub>2</sub> monitoring system is designed to continuously measure gas levels and provide early warning alerts if unsafe conditions develop. These systems are an essential part of workplace and customer safety in industries where carbon dioxide is stored, piped, or used.

## 2. System Overview

Your CO<sub>2</sub> monitoring system is built to detect and alert you to rising concentrations of carbon dioxide. It typically includes the following components:

- CO<sub>2</sub> sensors – placed in monitored areas to detect gas levels.
- Central unit – provides live readings, displays alerts, and stores alarm history.
- Warning devices – horns, strobes, or combination units to alert staff.
- Relay outputs – optional connections to ventilation systems, emergency shutoff valves, or building management systems.

Once installed, the system operates automatically whenever power is supplied. No startup procedure is required other than routine checks and annual service.

## 3. Alarms & Indicators

The system uses both visual and audible indicators to communicate status and warnings:

- Awareness Alert – CO<sub>2</sub> exceeds 0.5% (5000 ppm). No immediate danger, but ventilation should be checked.
- Low Alarm – CO<sub>2</sub> at ~1.5%. Entry should be limited to trained personnel with a second person present.
- TWA Alarm – Long-term exposure above permissible levels. Indicates a slow or continuous leak.
- High Alarm – CO<sub>2</sub> exceeds 3.0% (30,000 ppm). Immediate evacuation is required.
- System Fault – Communication or sensor issue detected. Service is required.

## 4. What To Do in Case of an Alarm

If an alarm sounds or strobes activate:

- Stay calm and do not ignore the alarm.
- For High Alarms, evacuate the affected area immediately and call emergency services.

- For Low or TWA Alarms, increase ventilation and contact service if the alarm persists.
- Do not re-enter until the system indicates safe conditions.
- If a fault is indicated, check the system display and contact service if the issue cannot be cleared.

## 5. Using the System

The central unit provides real-time information about connected sensors and alarm history. The display alternates between CO<sub>2</sub> concentration, average exposure (TWA), and any active alarms. Indicator lights and buzzers correspond to different system states.

Basic user functions include:

- Viewing CO<sub>2</sub> levels on the display.
- Silencing the buzzer during an active alarm (system will remain in alarm until cleared).
- Performing a system test by holding the reset/test button (horns and strobes will briefly activate).
- Resetting the system after alarms once safe levels have been restored.

## 6. Maintenance & Support

Your CO<sub>2</sub> monitoring system must be inspected annually to ensure proper function. Global Systems United will contact you each year when your inspection is due to schedule service.

If you require service at any time, submit a request here:

<https://globalsystemsunited.com/service-request>

## 7. Warranty Claim Information

To submit a warranty claim, please complete the online form:

<https://globalsystemsunited.com/warranty-claim>

If the issue occurs within the original warranty period outlined in your contract, Global Systems United, LLC will cover the full cost to repair or replace the affected device, sensor, or related component provided our technician determines the issue is due to component failure or installation workmanship.

If the issue is caused by factors outside of warranty coverage — including accidental damage, third-party interference, environmental conditions, unauthorized modifications, or normal battery failure — then repairs will be billed at our standard service rates under the Service Terms. All invoices on the customer's account must be current for warranty coverage to apply. Coverage will be determined after on-site evaluation by a technician.