

CARBON MONOXIDE SENSOR

MODEL GVV-CO

TYPICAL INSTALLATIONS:

- **Parking Garages**
 - Apartments
 - Condominiums
 - Office Buildings
 - **Bus Garages**
 - **Fire Stations**
 - **Warehouses**
 - **Car Dealers**
 - **Vehicle Maintenance & Storage**
 - Highway Departments
 - Utilities
 - Public Works
 - **Police Stations**
 - **Post Offices**
 - **Ice Arenas**
 - **Tunnels**
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GENERAL DESCRIPTION:

The GVV-CO carbon monoxide sensor is designed to interface with Toxalert International's GVV series control. (It is not a stand alone sensor). The sensor is microprocessor based and is temperature and humidity compensated for stability. It has a range from 0 to 250 ppm. The transducer utilizes a tin-oxide sensing element that is cleaned and sampled by the microprocessor. The GVV-CO indicates its status with a two color LED (light emitting diode). When the LED is flashing green, operation is normal and not in alarm. When the LED is flashing red, the unit is in alarm (high CO). A continuous red or green indicates sensor failure and an extinguished LED indicates power failure.



GVV-CO

FEATURES:

- **Microprocessor based**
 - **Humidity & Temperature compensated**
 - **Power On Indication**
 - **Sensor Failure Indicator**
 - **High CO Indication**
 - **Operating range meets OSHA Std. 1910-1000**
 - **Completely solid state for long life**
 - **Locking Enclosure**
 - **Low voltage class two (2) wiring**
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SPECIFICATIONS:

- **Input Power:** 12 VDC; 360 mA (provided from control unit).
- **Sensor Output:** 0 to 5 VDC (non linear); on at a nominal 4 VDC and off at 0 VDC.
- **Environmental:** Operating-
Temperature: 20° F to 122° F
(-29° C to 50° C)
Relative Humidity: 0 to 95% non condensing.

- **Enclosure:**
Nema 1 standard (others available)
Dimensions: 7 1/4" H x 7 3/4" W x 2 1/2" D
(184.15 x 196.85 x 63.5 mm)

- **Electrical Connections:** At marked screw terminal strip.
- **Response Time:** 30 seconds full scale.

Storage-
Temperature: 20° F to 158° F
(-29° C to 70° C)
Relative Humidity: 0 to 95% non condensing.

Keylocking
Finish: Tan Enamel
Weight: 3 lbs. (1.3 kg)

INSTALLATION INSTRUCTIONS:

1. INSTALLATION

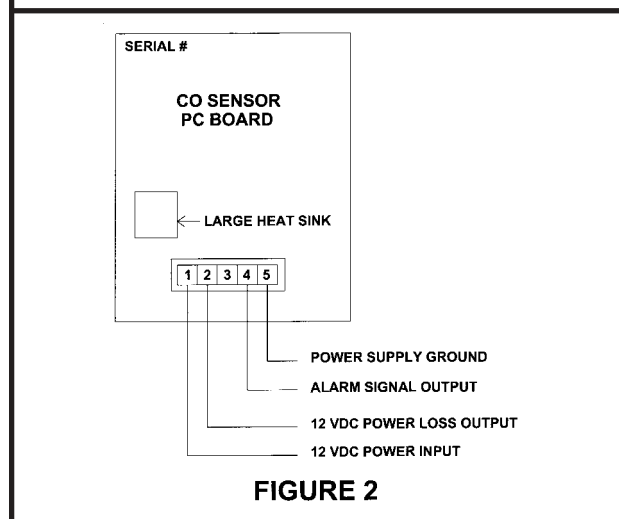
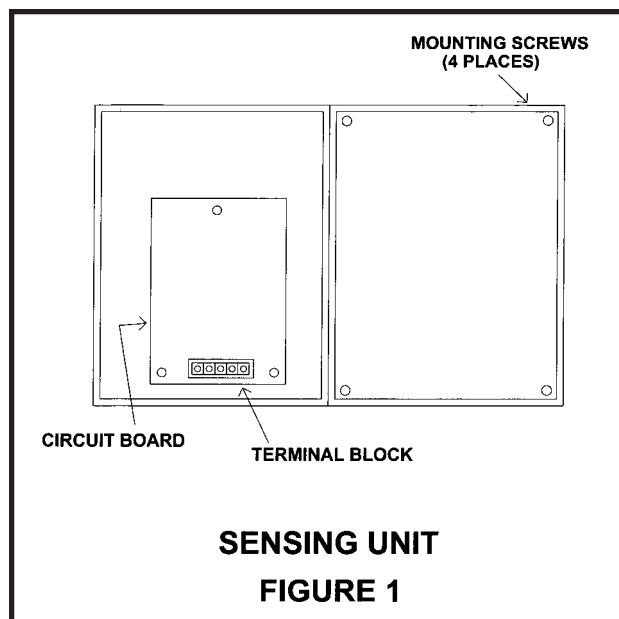
Locate a mounting location away from direct fresh air intakes, and mount vertically on wall or support column approximately 5 to 6 feet above floor. Refer to figures 1 and 2; Table 1 and 2 and installation instructions in GVV series control unit data sheet and install the GVV-2R sensor as follows.

2. MOUNTING SENSOR

- 1.) Open the door using the key provided. Next lift off the front door by sliding it up and off the pins of the hinges. Put it aside.
- 2.) Mount base with hinge pins along left side by using mounting holes (4 are available).
- 3.) A wiring access hole must be added to the base anywhere around the bottom or right side. Do not place an access hole on the hinge side of the base, since, if conduit is used, this may restrict the opening of the door. If conduit is to be used, use a chassis punch to match the required fitting size.
- 4.) Remove any metal chips and burrs from enclosure.
- 5.) Place the cover onto the hinges of the base.

3. SENSOR WIRING

WARNING: To prevent fire or shock hazard turn off power source to control unit before making connections. Comply with all local building codes and ordinances.



NOTE: Refer to Figure 2 and Tables 1 and 2. Use shielded cable to interconnect sensor and control unit if metal conduit is not used, or if conduit also contains AC wiring.

- 1.) Measure distance between sensing unit and control unit and select proper wire or larger wire from Table 1.
- 2.) Run wiring between control and sensing unit and into enclosure through access holes. Connect wires from terminal blocks in sensing unit to control unit per Table 2 and GVU series control unit data sheet.
- 3.) Verify all wiring connections and turn power on to sensor.

3. BURN -IN:

Burn-in period allows sensor to stabilize before proceeding with alarm setting procedure.

- 1.) Verify sensor has power, sensor LED should be flashing green or red.
- 2.) Allow systems to burn-in for a minimum of 72 hours with power turned on to sensor.
- 3.) When 72 hours have elapsed, proceed with system checkout according to GVU series control unit data sheet.

Sensor is factory calibrated to 50 ppm CO and requires no field calibration for installation.

If the GVU-CO indicator LED is not flashing, this indicates sensor failure, please contact your local representative or TOXALERT International.

TABLE 1 AWG	DO NOT EXCEED
#22 Wire	500 Ft. Sensor to Controller
#20 Wire	800 Ft. Sensor to Controller
#18 Wire	1300 Ft. Sensor to Controller
#16 Wire	2000 Ft. Sensor to Controller

TABLE 2 GVU-CO SENSOR	GVU-1	WIRING CONNECTIONS CONTROL UNITS GVU-3
1	TB2-7	TB1-A7,B7,C7
2*	TB2-6	TB1-A6,B6,C6
4	TB2-1	TB1-A1,B1,C1
5	TB2-4	TB1-A4,B4,C4
**	TB2-5	TB1-A5,B5,C5

* Optional-power to sensor indication.

** Shield of cable (if used) should be connected at control unit only. Make sure sensor end is taped and isolated from terminals or metal.

GVU SERIES PRODUCTS:

CONTROLLERS

GVU-1 Control unit for use with one sensor
 GVU-3 Control unit for use with one to three remote sensors

REMOTE SENSORS –

GVU-CO Remote carbon monoxide sensor GVU-NO₂ Remote nitrogen dioxide sensor
 GVU-CO₂ Remote CO sensor GVU-VOC Remote smoke/air quality sensor

