

MACURCO GAS DETECTORS

GD-1

INSTALLATION AND OPERATING INSTRUCTIONS

GENERAL INFORMATION:

The GD-1 is a low voltage (12 to 24 VAC or VDC) all electronic detector of toxic and combustible gases, designed for connection to alarm control panels or for use alone. See the GD-1 data sheet for more information.

LOCATION

The unit on average can cover about 900 sq. ft. The coverage depends on air movement in the room or facility. Locate the unit high if the gas of concern is lighter than air, such as natural gas (methane). If the gas of concern is heavier than air; such as butane, propane, alcohol's or gasoline; mount the detector relatively low. Extra detectors may be needed near any areas where people work or the air is stagnant.

INSTALLATION AND CONNECTIONS

See the back of the data sheet for information.

OPERATION

When power is first applied to the detector, it will go through a warm-up period of about two minutes. The unit has an internal delay of about 2 minutes that prevents alarms during the warm-up period. The green light will turn on and off during the two minute delay period. The green light will turn on continuously afterwards, to indicate the unit is in normal operation.

The green light is part of a supervisory circuit that monitors all critical functions of the detector. If the green light ever goes off, there has been a malfunction or the power is off. A failure of the gas sensing element will result in the green light and the red light turning on and off, and the Trouble relay switching from Normally Closed to Open.

Once the unit is operational (the green light is on steady,) test the unit by directing gas from an *unlighted* butane cigarette lighter into the detector near the red light. The red light will turn on to show that the Alarm relay has switched and the panel, or other connected device, has been actuated. The detector should be tested regularly about every 6 months, by using gas from an *unlighted* cigarette lighter, as detailed above.

LATCHING OPERATION

The GD-1, in its normal configuration, will automatically reset itself by shutting off the red light and returning the relays to their normal positions, once the air clears. If the jumper wire labeled "CLIP FOR LATCH IN" on the circuit board has been clipped, the unit will stay in alarm until the power is interrupted.

ALARMS DUE TO NORMAL ACTIVITIES

Various common household and commercial products, such as cleaning agents and aerosol spray cans, contain fumes or vapors that can cause the GD-1 to alarm. A list of gases that can cause alarms is on the back of the data sheet.

SENSOR POISONS

The gas sensing tip in the detector is designed with extreme sensitivity to the environment. As a result, the sensing function of the tip may be deteriorated if it is exposed to a direct spray from aerosols such as paints, silicone vapors, etc., or to a high density of corrosive gases (such as hydrogen sulfide, sulfur dioxide) for an extended period of time.

SERVICING OF UNIT

The GD-1 does not require regular maintenance. The unit uses a self-purging semi-conductor sensor that has a 7-10 year life expectancy. All maintenance and repair of products manufactured by Macurco, Inc. are to be performed at the Macurco manufacturing facility. Macurco does not sanction any third-party repair facilities.

LIMITED WARRANTY

The GD-1 gas detectors are warranted to be free from defective material and workmanship for a period of two (2) years from the date of manufacture (stamped inside). If any component becomes defective during the warranty period, it will be replaced or repaired free of charge, if the unit is returned in accordance with the instructions below. This warranty does not apply to units that have been altered or had repair attempted, or that have been subjected to abuse, accidental or otherwise. The above warranty is in lieu of all other express warranties, obligations or liabilities. **THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE LIMITED TO A PERIOD OF ONE (1) YEAR FROM THE PURCHASE DATE.** Macurco shall not be liable for any incidental or consequential damages for breach of this or any other warranty express or implied arising out of or related to the use of said gas detector. Manufacturer or its agents liability shall be limited to replacement or repair as set forth above. Buyer's sole and exclusive remedies are return of the goods and repayment of the price, or repair and replacement of non-conforming goods or parts. (The Uniform Commercial Code applicable in the State of Colorado shall govern.)

RETURN INSTRUCTIONS

Call (303) 781-4062 for a Return Authorization number. Then, carefully pack the gas detector with a written description of the nature of the return. Send the unit to the following address:

**Macurco Inc.
3946 S. Mariposa St.
Englewood, CO 80110, USA**