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- LPG/Petrol Gas Detectors/Alarms
- Bilge Water Alarms & Bilge Pump Controllers
- Windlass Controller/Chain Counter
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- Marine Security System
- RPM/Engine Hours/Elapsed Time Gauge
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- Digital Water Temperature Gauge/Alarm
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- 4 & 8 Channel NMEA Combiners/RS-232 Convertors
- Engine/Exhaust Temp. Monitor & Digital Pyrometer
- NMEA 0183 Remote Data Repeater/w 4 Input Channels

# CruzPro<sup>®</sup>

## GD-55



## Gas Vapor Detector/Alarm

and need to burn off. Either leave the unit running with the alarm on, or turn off the power for five minutes and start over. It may take several starts before the sensor functions normally.

### Self Test

Anytime after the "Wait" LED has gone out, you can test the electronics and built-in alarm by pressing the "Test" button. The green "Safe" light should go out, the red "Alarm" LED should light and the alarm should sound. If any of these operations do not occur, there is a malfunction of the unit and/or sensor and it should be repaired.

### Introduction

LPG or gasoline/petrol vapors, even in low concentrations, make a dangerous heavier-than-air explosive mixture that can settle in low areas of your boat's bilge. The GD-55 Gas Vapour Detector provides accurate, low cost protection by detecting gas vapours at very low concentrations.

The GD55 can detect gas vapours at 1/4 of LEL (Lower Explosive Limit), the concentration required for an explosion. The built-in 85 dB alarm will warn you before they reach dangerous levels.

The alarm will continue to sound as long as the sensor detects a dangerous concentration of LPG or Petrol gas vapours.

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www.cruzpro.com

GD55MAN-D  
info@cruzpro.com

## Warning Notes

**Detectable Vapors:** The GD55 sensor detects alcohol, butane, gasoline/petrol, hydrogen, kerosene, LP gas, propane, and methane. Some common cleaning agents and aerosol spray cans contain vapors that can also activate the alarm.

**LEL:** Each gas has its own LEL (Lower Explosive Limit). The GD55 is calibrated against LPG.

**Sensor Contamination:** Aerosols from paints, silicone vapors, and corrosive gasses such as hydrogen sulfide and sulphur dioxide can deteriorate the gas sensor used by the GD55. If you cover the sensor to protect it during painting, varnishing, etc., be sure to leave a note to uncover them later. Do not place the sensor in a humid locker and keep it dry.

## Specifications

- Power supply:** 10.5 to 16.0 VDC, 0.12 amps
- Operating temperature:** 32 to 122 F ( 0 to 50 C)
- Size:** 2.5" dia X 4.1" deep (61mm x 104 mm).
- Accuracy:** 25% LEL (Lower Explosive Limit)
- Alarms:** Built-in 85 db alarm.
- Display:** 3 LEDs, green "Safe" LED, red Alarm LED and red "Wait" LED during warm-up.
- Sensor:** Remote sensor with 5 meters (16 feet) of cable.
- Self Test:** Built-in self test for sensor wiring and internal electronics/alarm buzzer.

## Operation

### Power ON

Apply 12 VDC through a 1 amp fuse to power the GD-55. The red "Wait" LED will light soon followed by the green "Safe" LED. The GD55 takes about 1-1/2 to 2 minutes to warm up the gas sensor. When the "Wait" light extinguishes and the green "Safe" LED is ON, the unit is operational and testing for gas vapours. If gas vapours above 25% LEL (Lower Explosive Level) is detected, the "Safe" LED will go out, the red "Alarm" LED will go on and the built-in alarm will sound as long as gas is present.

When the unit has not been used for a long time, it may alarm the first time it is turned ON. This occurs because contaminants have built-up on the sensor

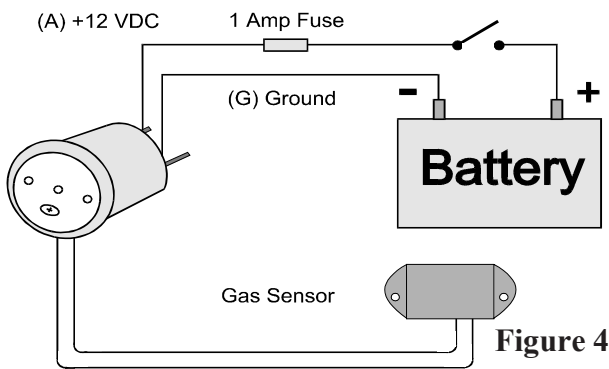


Figure 4

● Carefully check all your wiring. If everything is wired correctly you can mount the GD55 in the instrument hole. Be sure the bulkhead gasket is in place and use only finger tension to tighten the bracket hold-down nuts. Do not overtighten the bracket or you may damage the case - do not use tools to tighten the nuts.

● Drill a 2-1/8" (55mm) mounting hole where you desire to mount the instrument (Figure 1).

● Mount the sensor in a dry, low area of your boat where gas vapours tend to settle. Do not place the sensor in a humid area such as an outside locker or in an area where it may get wet. Humidity will slowly degrade the sensor and water will destroy it. Orient the sensor with the two small stainless steel screws as shown in Figure 2.

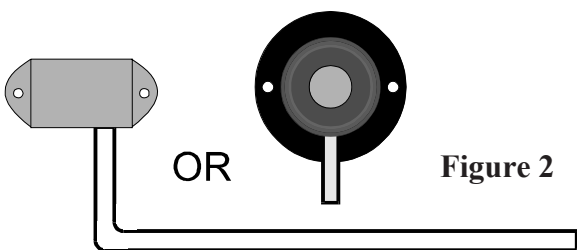


Figure 2

## Installation

Before starting the installation, please read this entire section first. Be sure to install the bulkhead gasket before you install the instrument. Finger tighten the screws that mount the instrument bracket - do not use tools.

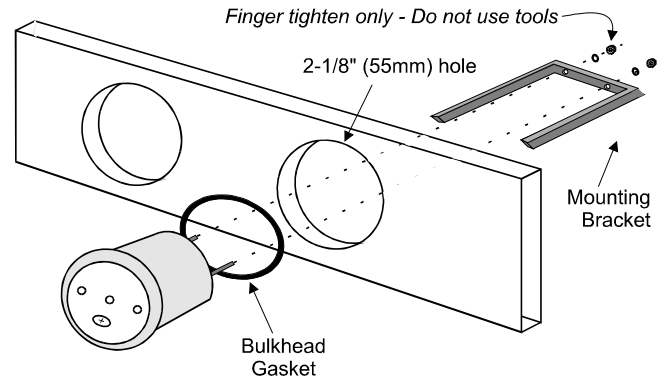


Figure 1

● Bring the sensor wires, ground and power lines out of the mounting hole and use a small flat screwdriver to make the connections to the screw terminal on the instrument case back as shown in Figures 3 and 4.

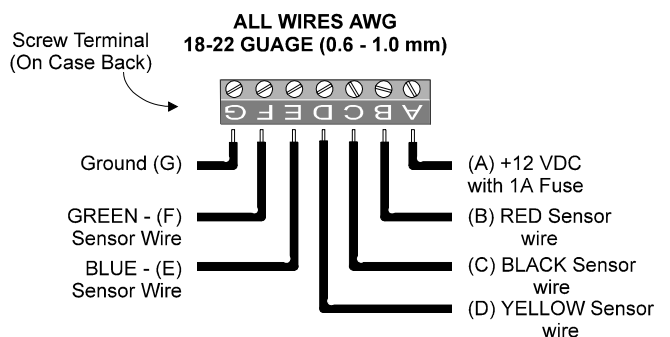
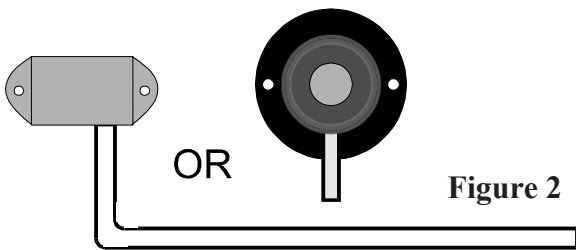


Figure 3

- Drill a 2-1/8" (55mm) mounting hole where you desire to mount the instrument (Figure 1).
- Mount the sensor in a dry, low area of your boat where gas vapours tend to settle. Do not place the sensor in a humid area such as an outside locker or in an area where it may get wet. Humidity will slowly degrade the sensor and water will destroy it. Orient the sensor with the two small stainless steel screws as shown in Figure 2.



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- Bring the sensor wires, ground and power lines out of the mounting hole and use a small flat screwdriver to make the connections to the screw terminal on the instrument case back as shown in Figures 3 and 4.

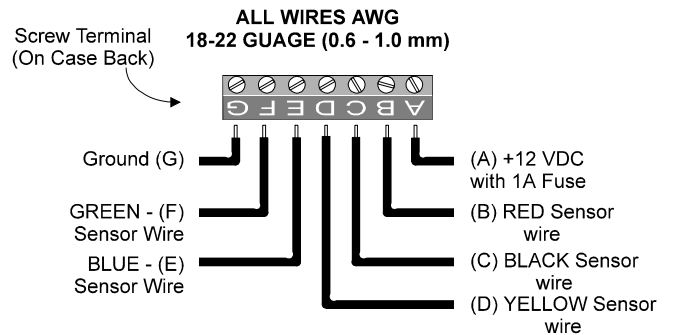


Figure 3

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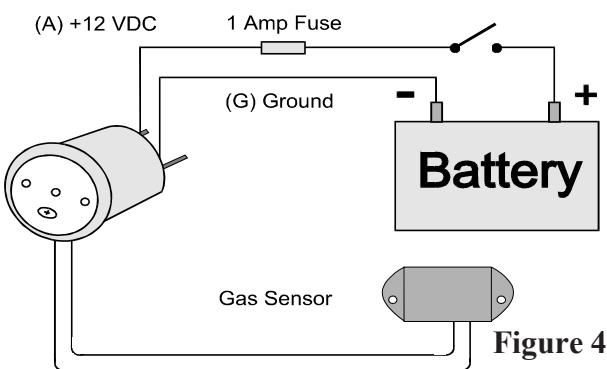


Figure 4

- Carefully check all your wiring. If everything is wired correctly you can mount the GD55 in the instrument hole. Be sure the bulkhead gasket is in place and use only finger tension to tighten the bracket hold-down nuts. Do not overtighten the bracket or you may damage the case - do not use tools to tighten the nuts.

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## Installation

Before starting the installation, please read this entire section first. Be sure to install the bulkhead gasket before you install the instrument. Finger tighten the screws that mount the instrument bracket - do not use tools.

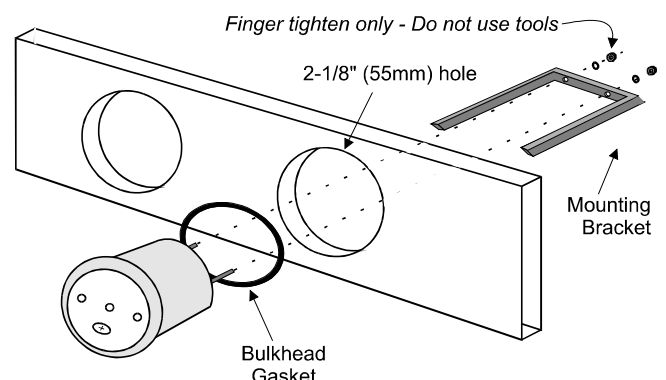


Figure 1

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