CO_2 CALIBRATION KIT
Model CDD1-CALKIT-GS

DESCRIPTION:

The CDD1-CALKIT-GS is a kit to correctly calibrate the Greystone Model CDD CO_2 detectors. The CDD1-CALKIT-GS includes:

- Tubing,
- Regulator,
- LCD module,
- Carrying case

Note: Calibration Gas is not included. To be purchased locally.

Calibration Gas Requirements (103 liter tanks):

Single Channel Device:
1000 ppm CO_2

Dual Channel Device:
Nitrogen (for 0 ppm calibration)
1000 ppm CO_2
20000 ppm CO_2

Calibration

Calibration with gas requires a Field Calibration Kit with pressure regulator, necessary tubing and appropriate bottles of CO_2 gas.

Note that the procedure depends on the device model. The standard model requires only a single point 1000 ppm calibration to meet specified accuracy due to the Automatic Calibration mode and other technology incorporated into the device. The dual-channel sensor with extended range requires a 3-point calibration with 0, 1000 and 20,000 ppm gas (in that order).

Turn the regulator knob off. Remove the cover of the unit to be calibrated to expose the gas sensor chamber. The tubing from the regulator can be connected to either port on the chamber after the plastic cap is removed. Gently remove one cap and connect the tubing, note that strong shock or vibration can affect calibration.

Ensure the device has been operating normally for at least five minutes. Attach the gas tank as per the sequence listed below. Turn the valve knob on the regulator to start the gas flow. The regulator will restrict the flow rate to the specified 100 ml/min. After a brief period the gas will flow into the chamber. Wait 1 to 2 minutes until the CO_2 stabilizes.

0 PPM Calibration (Dual channel sensor only)
Connect the Nitrogen gas bottle and hand tighten. Turn the valve knob on the regulator to start the gas flow.

Enter the Setup menu and use the <MENU> key to advance to Calibrat 0 PPM. Press and hold the <SAVE> key for 2 seconds and the display will change to Waiting Calibrat then to Waiting 5 minute to indicate that the process of setting the internal calibration is taking place.

This takes about 5 minutes while the LCD counts down. Do not disturb the unit or the gas flow. When complete the unit will display the ppm value and Cal Done. Press the <SAVE> key to return to normal operation and shut the gas off.

1000 PPM Calibration (For all models)
Connect the 1000 ppm CO_2 gas bottle and hand tighten. Turn the valve knob on the regulator to start the gas flow. The CO_2 reading on the LCD will begin to approach 1000 ppm. Wait 1 to 2 minutes until the CO_2 reading stabilizes.

Enter the Setup menu and use the <MENU> key to advance to Calibrat 1000 PPM. Press and hold the <SAVE> key for 2 seconds and the display will change to Waiting Calibrat then to Waiting 5 minute to indicate that the device is calibrating. Again, this process takes about 5 minutes. When calibration is complete the unit will display the ppm and Cal Done. Press the <SAVE> key to return to normal operation and shut the gas off.

20,000 PPM Calibration (For dual channel sensor only)
Connect the 20,000 ppm CO_2 gas bottle and hand tighten. Turn the valve knob on the regulator to start the gas flow. The LCD will begin to approach 20,000 ppm. Wait 1 to 2 minutes until the CO_2 reading stabilizes.

Enter the Setup menu and use the <MENU> key to advance to Calibrat 20,000 PPM. Press and hold the <SAVE> key for 2 seconds and the display will change to Waiting Calibrat then to Waiting 5 minute.

Again, wait 5 minutes and when calibration is complete the unit will display the ppm and Cal Done. Press the <SAVE> key to return to normal operation and shut the gas off.

Disconnect the tubing and replace the cap on the sensor chamber as calibration is complete.

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