GREYSTONE
ENERGY SYSTEMS INC

CO/NO_2 CALIBRATION KIT
MODEL GDT-CALKIT-CNC

The GDT-CALKIT-CNC is a kit to correctly calibrate the Greystone Model GDT CO/NO_2 detectors. The GDT-CALKIT-CNC includes:

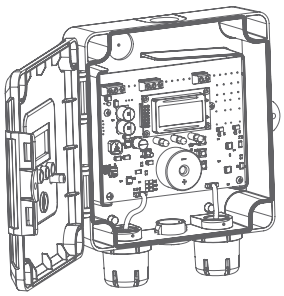
- Tubing
- Regulator
- Calibration Cap
- Carrying Case
- Sponge (For CO only)

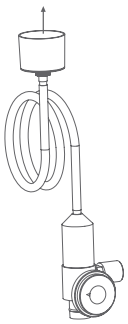
Note: Calibration Gas is not included. To be purchased locally.

Calibration Gas Requirements (103 liter tanks):
250ppm CO in air,
10ppm NO_2 in air

PRE-CALIBRATED SENSOR REPLACEMENT:

The GDT sensor features a gas sensor POD that is pre-calibrated. This means that the POD can simply be replaced with a new calibrated POD if desired without having to remove the enclosure and the main processor board. This sensor swap can be completed in seconds. Simply unplug the POD cable connection from the main board in enclosure, remove the POD by unscrewing counter clockwise, install the POD by screwing it in clockwise and reconnect the POD cable to connector on main PCB. There is no need to make any adjustments or apply gas to the transmitter using the sensor swap method.





CALIBRATION:

The device may also be calibrated or verified with the CO or NO_2 gas if required. This requires a field calibration kit consisting of a bottle of gas, a tank pressure regulator with flow restrictor and the necessary tubing with a calibration cap to cover to the sensor. Calibration can be done at 20 to 27°C.

Verification with gas can be done without removing the device cover. For surface mount products, simply apply gas using the calibration cap over the POD to be calibrated. See the below images for reference.

The sensor must be continuously powered for at least 1/2 hour prior to calibration. To put device into calibration mode the cover on main unit should be opened. Press and release the <Menu> key to enter the Setup Menu. Continue to press the menu key and release to step through choices until the CO (or NO_2) Calibration screen is shown.

CO Zero Cal GO

The following section describes how to calibrate for the CO sensor. Ensure the sensor is in clean air. Press and hold the <UP> key for 3 seconds to initiate the calibration process. When the calibration is complete, the display will indicate DONE. Then press <MENU> to advance to the next selection. A CO Zero Calibration Counter is incremented every time this step is performed. The CO ReCal timer is reset whenever this step is performed. Attach to the 250 ppm CO gas bottle to the regulator and firmly tighten it by hand. Moisten the sponge and squeeze out any excess water. Place the sponge in the cap so it does not plug the hole in the side of the cap. Install cap over the CO Pod to be calibrated. Turn on the regulator to begin gas application. Wait 3-5 minutes for sensor to stabilize, then press and hold the <UP> key for 3 seconds to initiate the calibration process. When the calibration is complete, the display will indicate DONE. Then press <MENU> to advance to the next selection. A CO 250 Calibration Counter is incremented every time this step is performed. The CO Re-Cal timer is reset whenever this step is performed. If reading is not within +/- 10% of expected value the unit will not calibrate and report a failure.

NO2 Zero Cal GO

The following section describes how to calibrated for the NO_2 sensor. Ensure the sensor is in clean air. Press and hold the <UP> key for 3 seconds to initiate the calibration process. When the calibration is complete, the display will indicate DONE. Then press <MENU> to advance to the next selection. A NO_2 Zero Calibration Counter is incremented every time this step is performed. NO_2 Re-Cal timer is reset whenever this step is performed. Attach to the 10 ppm NO2 gas bottle to the regulator and firmly tighten it by hand. Sponge should not be used for NO_2 gas. Install cap over the NO_2 Pod to be calibrated. Turn on the regulator to begin gas application. Wait 3-5 minutes for sensor to stabilize, then press and hold the <UP> key for 3 seconds to initiate the calibration process. When the calibration is complete, the display will indicate DONE. Then press <MENU> to advance to the next selection. A NO_2 10 Calibration Counter is incremented every time this step is performed. The NO_2 Re-Cal timer is reset whenever this step is performed.

RoHS COMPLIANT

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