

# Quick Reference Guide Adjustment

Zero point adjustment and calibration with fresh air and test gas

## Preparation

You will need the following items for test gas calibration: **G222E**, **Calibration cap** or **smart calibration cap** for G222E, **Test gas cylinder\*** with attached **regulator** (with a regulated flow rate of 0.5 - 0.6 slpm) and connected **test gas hose**.

\* The test gas or test gas compound has to be suitable for the sensor configuration of the gas detector you need to adjust.

**Note: Any use of test gas should only be performed in well ventilated rooms for safety reasons.**

## 1 Starting your device

Briefly press the right button to start the device. The starting sequence is initiated and the device will then enter a warm-up phase lasting several seconds. If no special notifications are displayed, a short beep will indicate that the device is in measuring mode.



## 2 Activating the service menu

Hold the left button down to activate the service menu. The service menu is protected from non-authorized access by a four-character service code. The service code is 0011.

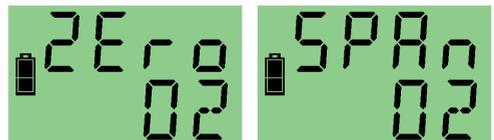
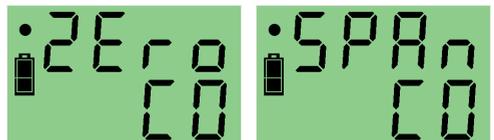


Briefly pressing the left button increases the number by one. To decrease the number, hold the left button down. Briefly pressing the right button navigates to the next position. To go back to the previous position, hold the right button down. When you have entered all four characters, confirm the service code with the right button to access the service menu.

## 3

The first menu item is the preparation for zero point adjustments of the first sensor, as denoted by the dot above the battery symbol. Pressing the right button will take you to the first sensor's zero point adjustment, pressing the left one will take you to calibration.

If there are sensors in both slots, pressing the left button again will take you to the zero point adjustment of the second sensor, and pressing it yet again will then take you to the second sensor's calibration.



## 4 Zero point adjustment with fresh air (e.g. CO)

Press the right button to display the zero gas concentration (generally 0000). Press the right button again to start the zero point adjustment. You can then start the zero gas (fresh air) adjustment by pressing the left button. CO and JSTG will be displayed alternately to indicate that the adjustment is in progress. The completion of the adjustment is signaled by either OK or ERR. Then, confirm the process by pressing any button and save by pressing the right button [Y] or discard the adjustment by pressing the left button [N].



## 5 Calibration with test gas (e.g. CO)

Press the right button to access the gas concentration display / input screen. To change the test gas concentration, navigate to the Changes screen by pressing the left button. Change the value using the instructions below: Briefly pressing the left button increases the number by one. To decrease the number, hold the left button down. Briefly pressing the right button navigates to the next position (to the right). To go back to the previous position, hold the right button down. When you have entered all four characters, confirm the value by pressing the right button. Changed gas concentrations can either be saved (right button [Y]) or discarded (left button [N]). Press the right button again to start the calibration process.



Attach the calibration cap to the sensor cover (clip in the left side, push down on the right side) until it audibly clicks into place. Attach the end of the hose of the test gas cylinder to the calibration cap's lower gas inlet. If necessary, a hose for exhaust air can be attached to the calibration cap's upper gas outlet. Then, open the valve of the test gas cylinder and press the left button to start the calibration.

6 The measured gas concentration will then be displayed in alternation with the type of gas and "JSTG". When the measured value has stabilized and is within an adjustable range, the current measured value is adjusted to the target value. The completion of the calibration is signaled by either OK or ERR.



7 Close the test gas cylinder's valve. Then, confirm the process by pressing any button and save by pressing the right button [Y]. The calibration cap can be removed again by pushing it downwards, following the directions given by the arrows.



## Particularities of oxygen sensors

Use a calibration cap and zero gas of 0.0% vol. O<sub>2</sub> (with 100% vol. N<sub>2</sub>) for the zero point adjustment of oxygen sensors. For the calibration use either the calibration cap and a test gas compound containing oxygen or fresh air.