User Manual

GSM250

CO2, HUMIDITY, TEMPERATURE WALL MOUNT/DESKTOP MONITOR

INTRODUCTION

Thank you for purchasing the Triplett GSM250 CO2, Humidity and Temperature Monitor. This is an accurate, fast, smart and easy-to-use indoor air quality monitor. In addition to measuring the CO_2 concentration, it also measures the ambient temperature, relative humidity and display the hazardous level. This monitor is developed to detect the presence of CO_2 in ambient air and helps user to take care of Indoor Air Quality.

Features:
- Large LED displays CO_2 value, humidity and temperature.
- Wall mount display with light bar to provide easy reading from far distance
- Touch panel to program the setting
- NDIR (non-dispersive infrared) waveguide CO_2 technology
- 3-color light bar (green / yellow / red) gradually changes color with CO_2 concentration. CO_2
- Automatic background calibration (called ABC) for long time drift compensation Buzzer
- Alarm function
- Areas of application: Widely used in the office building, school, exhibition hall, shopping mall, meeting room, fitness center, restaurant and other public places where personal comfort and healthy are important.
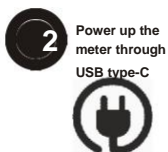
MATERIAL SUPPLIED

The standard package contains below:
- CO_2 monitor x 1pc
- USB-C cable x 1pc
  NOTE: provided USB-C cable is for power charging only, can't be used for data transfer.
- Operation manual x 1pc
- Sticker & Screws for wall mount hanging x 1 pack

POWER UP

This CO_2 meter is designed as wall mount & desktop use. It is powered up by 5VDC through USB-C cable. For mobility, you may also use power bank for temporary use. Once CO_2 is powered, the LED will auto turn on.

1 Prepare an 5V
USB adaptor
(Not included in package)

2 Power up the
meter through
USB type-C

3

Power up the
meter through
USB type-C

CAUTION

Please take off the AC power adapter and store it well when this CO_2 monitor left idle for long. Please use a standard USB power supply (such as PC's USB port, universal AC adapter with USB port). Improper power supply can cause serious damage to the device, or result in injury or death to the user.

The vents allow the air circulation liquid for measurement of the CO_2 concentration and the ventilation should not be blocked.

DISPLAY , KEYPAD, SPECIFICATION

1. CO_2 concentration, parts per million (ppm). NDIR CO_2 sensor, display up to 9999ppm

2. Ambient temperature , °C/°F switchable. Range -10~60°C(14~140°F)

3. Relative humidity , Range 0.1~99.9%RH

4. Three color. The status of measured CO_2 . Default: ▮ <800ppm   ▮ 800ppm~1000ppm   ▮ >1000ppm

5. CO_2 concentration alarm buzzer . Buzzer is default as OFF and can be activated through keypad

SET

-Setting modes. Long press to enter setting mode

MUTE +

-While buzzer sounds, short press to mute
-While in setting mode, press to adjust value

SPECIFICATION		
Measuring range	Response time	
CO2 0~9999 ppm,	CO2 <30 seconds (63% step change)	
Temperature 14~140°F (-10~60°C)	Tair <20 mins (90% step change)	
	Humidity <20 minutes (90% step change)	
Humidity 0.1~99.9% RH	Operating 14°~140°F(-10~60°C) , 0~95% RH (avoid	
Resolution 1ppm , 0.1°C/°F, 1%RH	condensation) O	
Accuracy		
CO2 +50ppm+5% of reading(0~2000ppm) Other range is 10% of reading	Power supply 5VDC USB type C port	
Temperature +0.6°C/+0.9°F	Power consumption <500mA	
Humidity +5%RH (at 25°C, 10~90%RH) ; ±7%RH (at 25°C , other range)	Meter size 8.9" x 6.0" x 1.8" (226 x 152 x 45 mm) (L x W x T)	
	Weight 17.6oz (500g)	
	Standard package Meter, manual ,USB type C cable ,Wall Mount accessories.	

OPERATION

3 different colors

SET   MUTE **+**

2 functional keys for setup purpose

1. Power on and Measure:
-Connect the USB-C cable to a PC or 5VDC wall adapter or power bank to power on the device.
-After power on, the LED count down for 10 seconds during warm-up.
-The device will start to measure CO2 concentration, ambient temperature and relative humidity after warm-up.

2. Light bar :
Besides value display, this meter is also equipped with programmable light bar feature.
There are 3 different CO_2 light bar color: Green, Yellow and Red. The color auto switches according to the measured Co_2.

The default status of measured CO_2. <800ppm 800ppm~1000ppm >1000ppm

3. Buzzer & How to turn off buzzer:
Buzzer function is default OFF in case of using in quiet places. It is required to activate buzzer function in setting mode while audible alarm is needed. While buzzer is activated and measured CO_2 is over alarm threshold, buzzer sounds once a second till pressing "**MUTE**" key to stop.

4. Setting:
Long pressing **"SET"** key to enter the settings. And then press **"SET"** key to select setting modes in sequence: AL (Alarm setting), Unit (temperature unit), Buzzer, ABC (auto background calibration) and bL (Brightness of light bar).
Press **" + "** key to adjust the parameters.
*Note: During the setting process, the device will return to the main screen after 25 sec of idle time.
4.1 Alarm(AL): The default alarm setting is 1,000ppm. It is adjustable from 800ppm to 3,000ppm, the interval is 100ppm. This threshold is related to buzzer alarm trigger and red light bar trigger. Press **"+"** to adjust alarm threshold value.

4.2 Temperature unit: Press **"+"** to switch between ℃ and ℉

4.3 Buzzer activation: Buzzer is default OFF for using in quiet places. Press **"+"** to turn it to ON.

4.4 CO_2 ABC function: ABC means the lowest measured CO_2 value within 7 days will be used as 400ppm to auto calibrate the CO_2 sensor to reduce the long term drift. It is default as ON. However, **it is not suggested to turn on ABC feature in hospital, green house, winery or any less ventilated places where CO_2 has no chance to get low.**
Press **"+"** to switch between ON and OFF.

4.5 Bightness of light bar: The bightness of light bar is adjustable. From off to strong is 0 to 10, 0 is turned off, 10 is the strongest. Default as 6. Press **"+"** to adjust the bightness of light bar to fit your application. Though light bar might be set to off, it will still blink at weakest level 1 brightness while measured CO_2 is higher than alarm threshold.

5. Calibration

The meter is calibrated at standard 400ppm CO2 concentration in factory. It's suggested to do either ABC or manual calibration regularly to maintain good accuracy.

Press " SET" + "+"keys at the same time till "CAL" is flashing. Long pressing "SET" key to start the calibration. During the calibration, "CAL" will flash on display with a 300 seconds count down. After 5 mins count down, the display return to normal measuring mode to indicate the calibration is done. During the calibration procedure, long pressing "+" key can quit the calibration function.

CAUTION: Do not calibrate the meter in the air with unknown CO2 level. Otherwise, it will be taken as 400 ppm and leads to inaccurate measurement. The manual calibration is suggested to be done outdoor with good ventilation, fresh air and sunny day where CO_2 level is around 400ppm. Do not calibrate in rainy day because high humidity will affect the CO_2 level in air. Do not calibrate in places crowded with people or close to where exist high CO_2 such as ventilating outlets or fireplaces.

ERROR CODE AND SOLUTIONS

CODE	PROBLEM	SOLUTION
E01	CO2 sensor is damaged	Send back to repair
E02	Measured reading is under the lower limit	For CO2 E02: Re-calibrate. For other E02: leave the meter in room condition for 30 mins. If it not works, send back to repair
E03	Measured reading is above the upper limit	For CO2 E03: put the meter in fresh air for 5 mins. For other E03: leave the meter in room condition for 30 mins. If it not works, send back to repair
E17	ABC mode of CO2 sensor is fail	Send back to repair
E31.34	Temp./RH measuring circuit is in error	Send back to repair

? *Can't power on*

   Check whether the adaptor is well plugged and the 5VDC power supply is working.

Warranty