SA1500P

Multifunctional indoor air quality monitor

CO2/CO/TEMP/RH

Introduction

Thanks for purchasing this Multifunctional indoor air quality monitor. This device is used to monitor the real-time concentration of Carbon Dioxide (CO2) and Carbon Monoxide (CO) as well as the values of Temperature and Humidity. It will send audible and visible alert when user's health or life is under threaten.

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This manual and its contents are only for the operation and use of this product and cannot be used for other purposes.

This manual and its content inevitably contain errors or discrepancies from reality, and are for reference only. If there are discrepancies or doubts, please contact our company.

The functions and specifications are subject to change without prior notice.
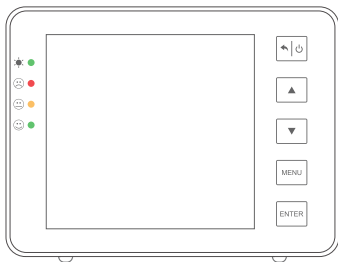
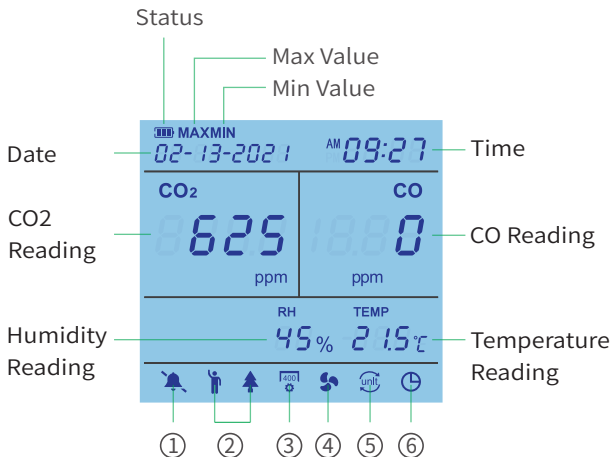## contact us

Web: www.shiantech.com
Tell: 86-10-89498895
E-mail: shian@shiantech.com

☀ ● Power Indicator（Green）

☹ ● High alarm Indicator（Green）

☺ ● Low alarm Indicator（Yellow）

☺ ● Good air condition Indicator（Green）

⌫|⏻ Quit / Exit / ON-OFF

▲ Up button

▼ Down button

MENU Menu button

ENTER Enter button

Status

Max Value

Min Value

Date

CO2 Reading

Humidity Reading

Time

CO Reading

Temperature Reading

CO_2 625 ppm

CO 0 ppm

RH 45%

TEMP 21.5℃

MAXMIN

02-13-2021

AM 09:27

① ② ③ ④ ⑤ ⑥

① Buzzer on/off
② Set alarm value
③ Manual calibration

④ Fan indicator
⑤ Unit for temperature
⑥ Set for date and time

Power on

Press and hold ⏻ to turn on and turn off the device.

* During the warm-up process, high and low alarm points for CO2 and CO will be displayed before the 40 seconds countdown.

Power off

Press and hold ⏻ to shut down the instrument.

Notice

When the backlight is OFF, press any key to light it.

Power lamp

In the process of charging, the green light flashes, and it is always on when it is fully charged.

Detection Interface

The detection interface shows real-time readings of CO2, CO, Temperature, Humidity as well as the Battery Status Indicator and Time & Date.

Alarm & Alert

When the CO_2 and/or CO level are/is higher than the lower alarm point, the yellow indicator will turn on, at the same time the gas name and the ⚘ will flash (indicating ventilation is needed)

When the CO_2 and/or CO level are/is higher than the high alarm point, the red indicator will turn on, at the same time the gas name and the ⚘ will flash (indicating ventilation is needed) and buzzer will sound when 🔔

When CO level reaches its high alarm point value, the buzzer will sound even under mute status (buzzer is obliged to sound since human life is under threaten)

Operation instructions

Check MAX and MIN values

Under detection interface, press ▲ in turn to check the Max and Min values of CO_2, CO, temperature and humidity in turn, along with time when these values recorded. These data are recorded from the moment when this monitor is powered ON to the present time scale.

Under detection interface, press ▼ to check the Max values of CO_2, CO, temperature and humidity at the same time, as well as for Min values. These data are recorded from the moment when this monitor is powered ON to the present time scale.

Press ↵⏻ or no operation in 20 seconds, it will turn to detection interface automatically

Trouble shooting

When the device can't be turned on when battery has enough power, find the hole at the back side of the device and use a thin stick like toothpick to press the button inside, one press is enough.

Menu Setting

In detection interface, press MENU to activate the menu bar, press ▲ / ▼ to select each function, press ENTER to enter and save setting and press ↰ ⏻ to quit and exit.
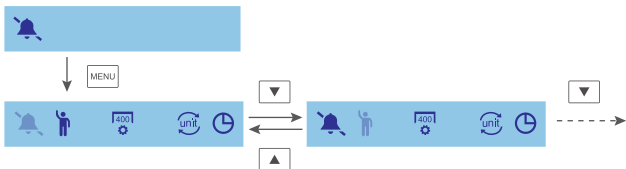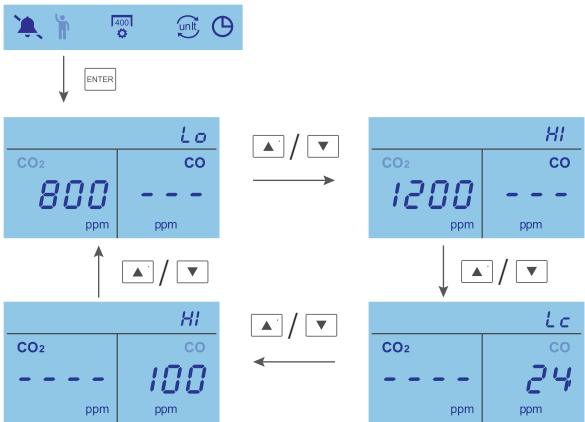

Set Buzzer

When 🔔 is blinking, press ENTER to mute the buzzer; when 🔕 is blinking, press ENTER to turn on the buzzer.
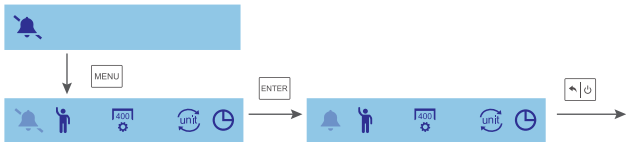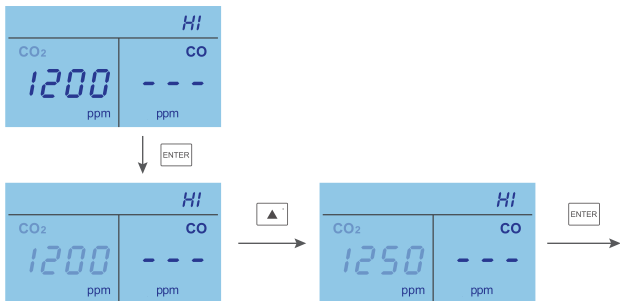
Setting

Set Alarm Points

When 🧍 is blinking, press ENTER to enter alarm value setting interface, press ▲ / ▼ to select gas names CO2/CO and alarm items HI/Lo, press ENTER to enter alarm value setting interface, press ▲ / ▼ to adjust values, press ENTER to save the setting.

Setting
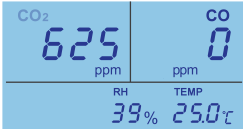
for example

Calibration

Before calibration, fully charge this device and run it for at least 10 minutes in outdoor environment to reach an atmosphere with 400ppm CO2 and 0ppm CO.

When 🔲400 is blinking, press ENTER to enter calibration interface. Press ▲ / ▼ to select among CO2, CO, Temp and Humidity.
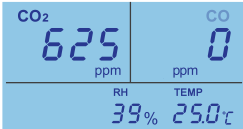
Setting

Calibrate CO2: when CO2 is blinking, press ENTER to start calibration, wait for 3-5 minutes till CO2 reading is stable, press ENTER to finish calibration.
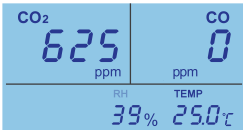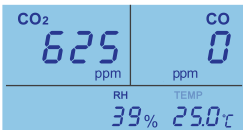
Calibrate CO: when CO is blinking, press ENTER to start calibration, wait for 3-5 minutes till CO reading is 0, press ENTER to finish calibration.

To calibrate temperature and humidity, professional equipment and atmosphere are needed, please do not calibrate casually.

Setting

When 🔄 is blinking, press ENTER to enter unit switch function (for temperature), press ▲ / ▼ to choose unit, press ENTER to save the setting.
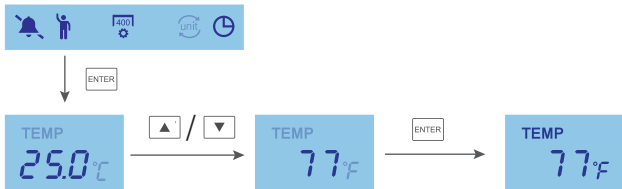
Set Time and Date

When 🕐 is blinking, press ENTER to set time and date. Press ENTER to switch each item and press ▲ / ▼ to adjust the digits. When the minute is well adjusted, press ENTER to save the setting.

When AM and PM blink at the same time, press ENTER to set the 24hour clock. Press ▲ / ▼ to make AM or PM blinking, press ENTER to set 12hour clock.

Setting
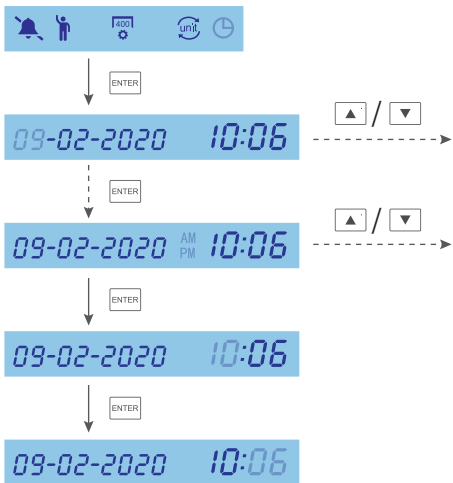
Restore to Factory Setting

When 🏃 is blinking, press and hold MENU for 4 seconds to restore to factory setting. An audible chirp can be heard when it's done.

Typical test conditions: Ambient Temp: 23±3°C,
RH=50%~70%, Altitude= 0~10 meters

Measurement	Specifications
Operating Temperature	32°F ~ 122°F (0°C ~ 50°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Operating & storage RH	0-95%(non-condensing)

CO2 Measurement

Measuringe range	(0-5000)ppm
Display resolution	1ppm (0-1000); 5ppm (1000-2000); 10ppm (>2000)
Accuracy	(0~3000)ppm: ± 50ppm ± 5% of reading (take the Maximum) (>3000)ppm: ± 7% of reading
Repeatability	20ppm at 400ppm
Temp compensation	±0.1% of reading per °C
Response time	<2 min for 63% of step change or < 4.6 min for 90% step change
Warm-up time	<20 seconds

CO Measurement

Measuringe range	(0-1000)ppm
Display resolution	1ppm
Accuracy	(0～50) ppm：5ppm (50～1000) ppm：Real value±10%

Temperature Measurement

Operating temperature	32°F ~ 122°F (0°C ~50°C)
Display resolution	1°F / 0.1°C
Accuracy	±2°F / ±1°C
Response time	<20 minutes (63%)

RH Measurement

Measuring range	5~95%
Accuracy	±5%
Display resolution	1% Main interface display, 1% Max/Min display

Operating Voltage	DC(5±0.25)V
Dimension	120*90*35mm
Weight	190g

07 Disclaimers

The USB cable is only used for power supply, not for communication with PC. if the power plug is disconnected or loose, the product may not work normally, and the LCD display information may be incorrect.

This product can't replace the CO2 detector in dangerous workplace, and can't replace the detector in human or animal health places, life and livelihood, medicine related fields.