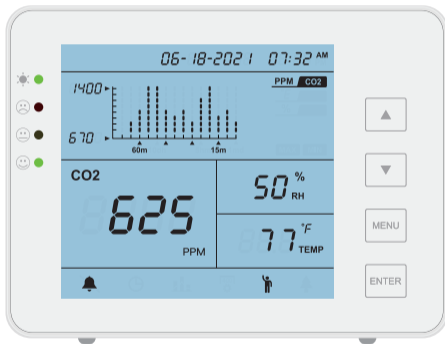# GZAIR

CO2 Monitor-1200P
Instruction Manual

CE RoHS 2.0 REACH   CO2/TEMP/RH

Getting Started

Thanks for purchasing our CO2 Monitor 1200P with memory and storage. Developed to detect CO2 concentration, temperature and relative humidity in ambient air, this device is smart, compact and easy to use. It automatically records data and can be easily exproted to a computer into an Excel file format.
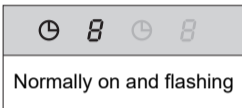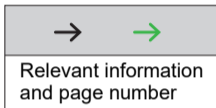
GZAIR provides full after-sales service to any customers. If you have any questions or concerns, please email us via *gzairservice@outlook.com* and we will answer you within 24 hours.

❖Table of Contents

Tips

Icons description：

| → →	⏱ *8* ⏱ *8*	▼ →
Relevant information and page number	Normally on and flashing	press button

explain：

- The button only works when the backlight is on. Click any key to light the backlight.
- Please press quickly and gently, don't press hard, or hold for long.

🔳Attention

Please read this manual carefully and keep it properly for future reference.

This device is not intended for workplace hazard CO2 monitoring, nor is it intended as a definitive monitor for human or animal health institutions, life sustenance, or in any medically-related situation.

⚠ **warning**
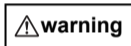
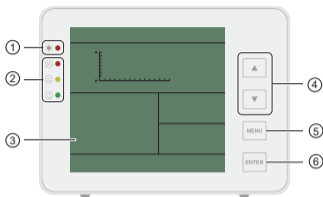In order to avoid and reduce risks and equipment damage, please:

- Keep out of reach for children and use it under adult supervision.
- Do not store, use or set this product in or near inflammable or explosive places.
- Do not touch the device, USB cable, or power adapter with wet hands.

❷Product introduction

1 Packing list

(a) CO2 Monitor Unit	
(b) USB Cable for Power	
(c) User's Manual	

2 Name

① Power indicator light (Green LED)
  • It is always on when the power is on and flickers when charging
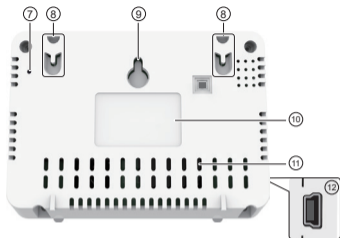
② Tricolor indicator → **8**

③ LCD Display → **6-7**

④ UP/DOWN Buttons
  • Used to toggle selection or adjust values

⑤ MENU Button
  • Activate the menu bar and exit

⑥ ENTER Button
  • Determine the menu items and set values in the selection

⑦ Hole for Buzzer

⑧ Hole for Rope
  • Use for hanging the device on the wall

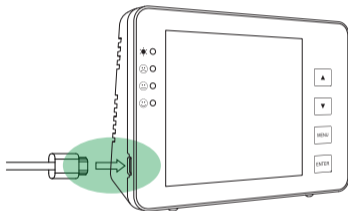⑨ Hole for Screws
  • Use for wall-mounted

⑩ Label

⑪ Vent ⑫ USB Port

❸How to use

Initial setup

When first unboxing, plug the included USB cable into the unit and the other end into USB power source.

If successfully connected, three things will happen while booting up:

1. 4 LEDs flash one by one
2. The interface will display low alarm point, high alarm point.
3. Main display shows a countdown from 30.

- Once the countdown is complete, your product is ready to use. No initial setup or calibration is needed.
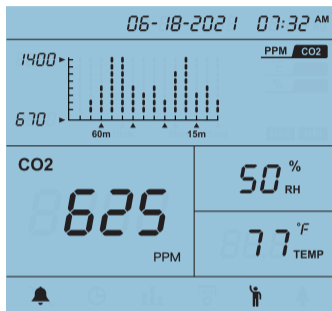
(Detecting interface)

Power supply:

1. Direct power from power adapter and USB cord.
2. Built-in battery power.
3. Computer USB port and purchased regular and qualified cell phone charger.
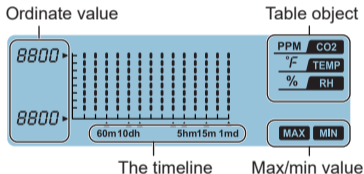
2 LCD display

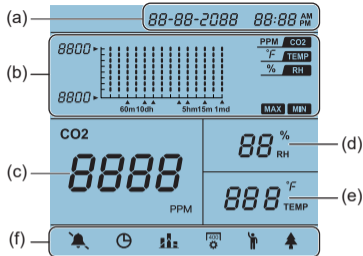(a) Date/time

Displays the current date and time

(b) Chart

Display the curve of CO2, temperature
and humidity

Ordinate value — Table object

The timeline — Max/min value

(c) CO2 Reading area

Displays the current CO2 concentration

(d) Humidity Reading area

- Displays the current humidity
- Display Lo and HI , indicating low /
  high alarm point

(e) Temperature Reading area

Displays the current temperature

(f) Main Menu options

🔔🔕 Buzzer	🖥 Calibration
🕒 Date / time	🚶 Human mode
📊 Chart	🌲 plant mode

3 Alarm

（1）Buzzer sounds

🔔　　🔕

When the buzzer icon displays 🔔 an audible alarm will sound if the CO_2 level exceeds preset CO_2 alarm value; 🔕 means MUTE.

（2）Light tips

● Human model

😞	Red LED on	: CO_2 reading $\geq$ High alarm point
😐	Yellow LED on	: Low alarm point < CO_2 reading < High alarm point
😊	Green LED on	: CO_2 reading $\leq$ Low alarm point

● Plant model

😞	Red LED on	: CO_2 reading $\leq$ Low alarm point
😐	Yellow LED on	: CO_2 reading $\geq$ High alarm point
😊	Green LED on	: Low alarm point < CO_2 reading < High alarm point

※ Mode switching and high / low alarm point setting →**14**

4 The chart to use

(a) Switching table objects

PPM **CO2** — CO2 chart
°F **TEMP** — Temperature chart
% **RH** — Humidity chart
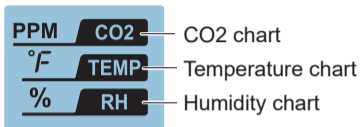
• If necessary, you can press ▼ to toggle table display objects.

PPM CO2 → °F TEMP → % RH

▼
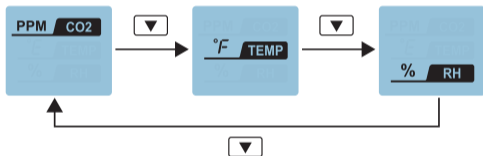
※ The instrument default CO2 chart, when switching to temperature or humidity chart, no operation for a period of time will automatically jump back to CO2 chart.

(b) Switching the timeline and view the max/min value
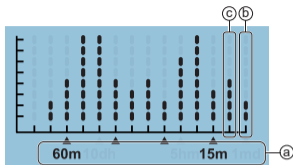
ⓐ **m**: minute; **h**: hour; **d**: day
On this timeline, one column represents 5 minutes.

ⓑ Indicates the data within 5 minutes from the current time

ⓒ Indicates the data generated within the last 5 to 10 minutes based on the current time

• If necessary, you can press ⬜ to switch the timeline. The time period represented by each column in the chart can be switched between 1 minute, 5 minutes, 1 hour and 1 day, and the minimum and maximum values can also be switched.

  ※ The default timeline is one minute per grid. When you switch to another timeline, after no operation for a period of time, it will return to the default.

• You can view the maximum and minimum values of CO2, temperature and humidity from startup to current period.

  Method: Press ⬜ to switch **MAX** / **MIN**, press ▼ to switch **PPM CO2** / **°F TEMP** / **% RH** and CO2 the value appears in the corresponding display area.

(c) View the data in each column of the table →**13**

10

4 How to set up

1 Restore factory defaults

In detection panel , hold `ENTER` until an audible beep is heard.

2 The menu Settings

🔔 🕘 📊 ⚙ 🚶 🔔

- Press `MENU` once to activate the menu bar, press `▲` / `▼` to cycle and switch function options. （Blinking Indicates the selection status）

- When 🔔 blinks, press `MENU` to exit the menu bar.

  ※ The menu bar automatically exits after no operation is performed for a period of time.

(a) Alarm

- When 🔔 / 🔔 blinks, press `ENTER` to enter Settings, press `▲`/`▼` to switch, and press `ENTER` to complete.

  Example:　🔔　$\xrightarrow{\text{ENTER}}$　🔔　$\xrightarrow{\text{▲}/\text{▼}}$　🔔　$\xrightarrow{\text{ENTER}}$　🔔
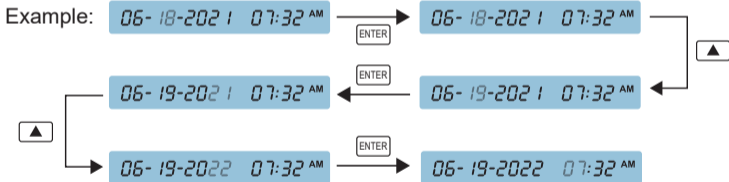
(b) Set the time

- When 🕒 blinks, press ENTER to enter the choice, press ▲ / ▼ to switch Options.

  Example:

  🕒 ──ENTER──▶ `06-18-2021  07:32 AM` ◀──▼── ──▲──▶ `06-18-2021  07:32 AM`

- When an item blinks, press ENTER to enter the setting, press ▲ / ▼ to adjust the value, press ENTER to switch to the next item, press MENU to exit.

  Example: `06-18-2021  07:32 AM` ──ENTER──▶ `06-18-2021  07:32 AM` ──▲──▶

  `06-19-2021  07:32 AM` ◀──ENTER── `06-19-2021  07:32 AM` ──▲──▶

  `06-19-2022  07:32 AM` ──ENTER──▶ `06-19-2022  07:32 AM`

> If *AM* and *PM* are blinking at the same time, press ENTER to set the mode to 24 hours.

(c) View the data in each column of the table
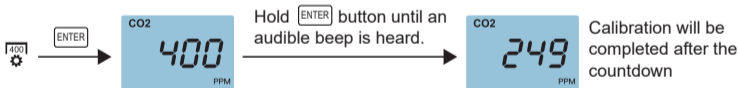
When 📊 blinks, press ENTER to view the table, press ▲ to select the columns of the chart and ▼ to toggle the timeline.

- Data for each column of the chart will be displayed in the CO_2, temperature and humidity display area.
- Press MENU or no operation for a period of time will exit.

(d) Calibration

Before calibration, run this device for at least 20 minutes with window open or in outdoor environment with backup battery to reach an atmosphere with 400ppm CO_2. Wait till the CO_2 reading is stable, then follow below steps for calibration.After calibration,leave it 10 minutes before normal use.

CO2

400

PPM

Hold ENTER button until an audible beep is heard.

CO2

249

PPM

Calibration will be completed after the countdown

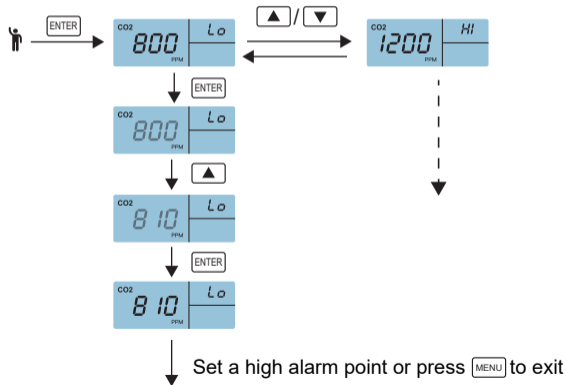※ Make sure it's fully charged before calibration.

(e) Human/Plant model

Check interface menu bar displays human mode or plant mode

- When 👤 or 🌱 blinks, press ENTER to set this mode, then set high/low alarm point.

Example:

Set a high alarm point or press MENU to exit

5 Specifications

CO2 Measurement	
Measuring range	(0-5000)ppm
Display resolution	1ppm (0-1000); 5ppm (1000-2000); 10ppm (>2000)
Sensor lifetime	10-15 years
Accuracy	(0~3000)ppm: ± (50ppm + 5% of reading) (>3000)ppm: ± 7% of reading
Repeatability	20ppm at 400ppm
Temp compensation	±0.1% of reading per °F ±2 ppm per °F, referenced to 77°F
Response time	< 2 min for 63% of step change or < 4.6 min for 90% step change
Warm-up time	<30 seconds
Temperature Measurement	
Operating temperature	32°F ~ 122°F (0°C ~50°C)
Accuracy	±2°F / ±1°C
Display resolution	1°F / 0.1°C
Response time	<20 minutes (63%)

| RH Measurement	
Measuring range	5~95%
Accuracy	±5%
Display resolution	1% Main interface display， 1% Max/Min display
Data storage capacity	2GB
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)
Operating Voltage	DC(5±0.25)V
Dimension	120*90*35mm
Weight	170g

※ Typical test conditions: Ambient Temp: 73±6°F, RH=50%~70%, Altitude= 0~10 meters

6 Operation mode

You can log in to https://www.gzair.top/data-logger/ to learn more

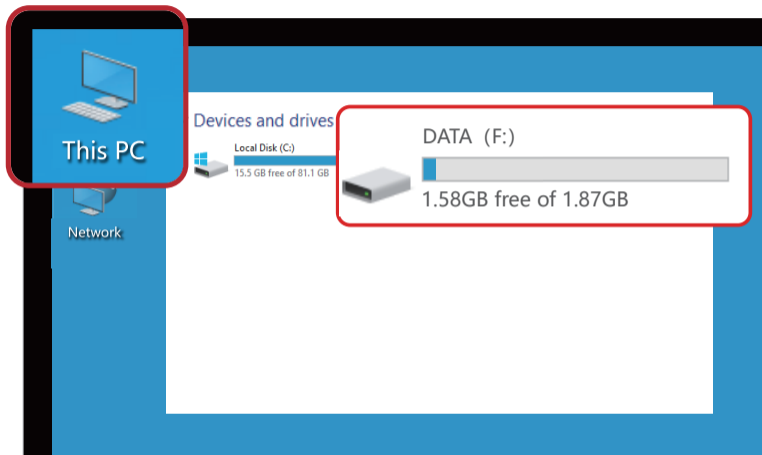**1 Set the time and date of the CO2 Monitor and synchronise it with your computer.**

※ This step is important in order for your CO2 Monitor to be able to correctly record when each sample is received.
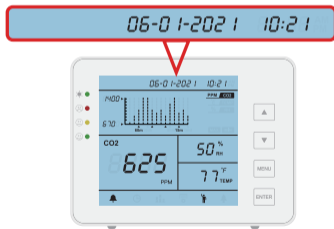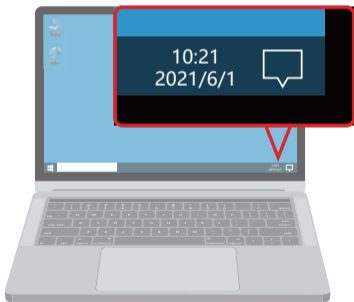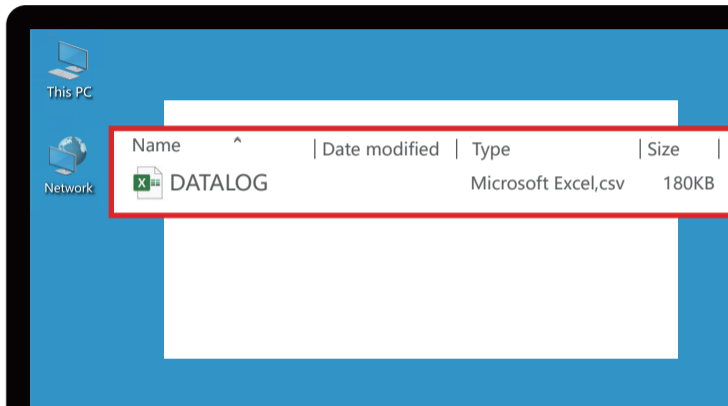
2 To check the recorded data, connect the CO2 Monitor to your computer with the provided USB cable.
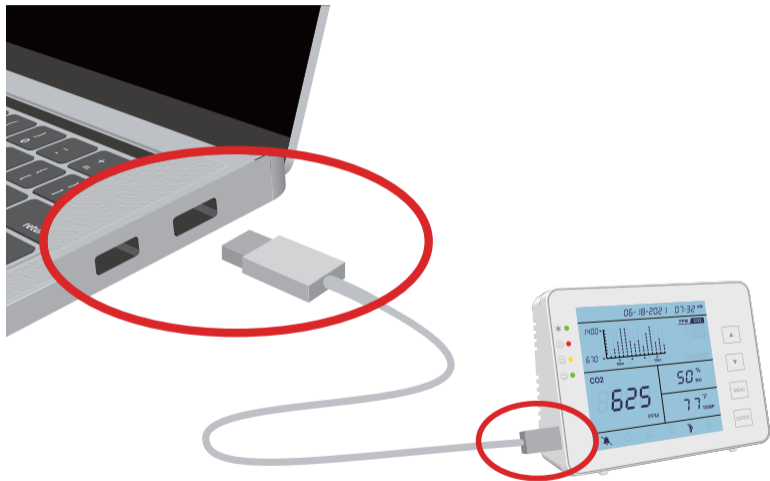
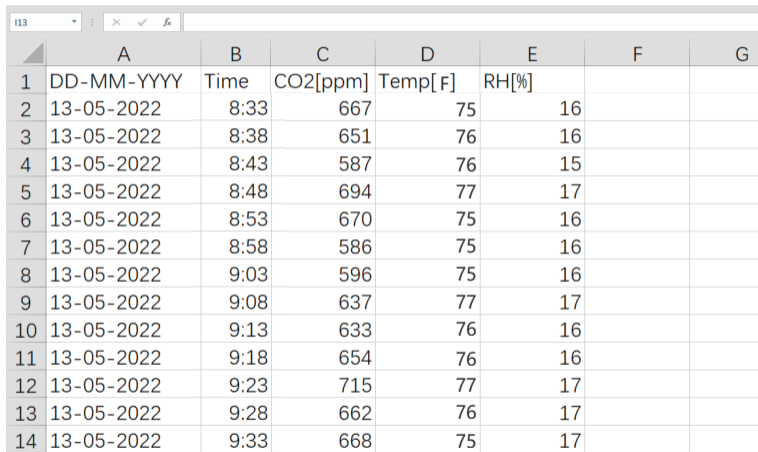**3 Double-click 'My computer' and select the USB drive (DATA).**

4 Find the file, copy it to a folder on your computer, open it and re-save it in Excel format, now you can analyse and edit the file.

5 Open the file.

The file is shown in the figure below

	A	B	C	D	E	F	G
1	DD-MM-YYYY	Time	CO2[ppm]	Temp[F]	RH[%]		
2	13-05-2022	8:33	667	75	16		
3	13-05-2022	8:38	651	76	16		
4	13-05-2022	8:43	587	76	15		
5	13-05-2022	8:48	694	77	17		
6	13-05-2022	8:53	670	75	16		
7	13-05-2022	8:58	586	75	16		
8	13-05-2022	9:03	596	75	16		
9	13-05-2022	9:08	637	77	17		
10	13-05-2022	9:13	633	76	16		
11	13-05-2022	9:18	654	76	16		
12	13-05-2022	9:23	715	77	17		
13	13-05-2022	9:28	662	76	17		
14	13-05-2022	9:33	668	75	17		

6 log in to https://www.gzair.top/data-logger/ to learn more.

(a): Upload the copied files from the instrument
(b): Select time precision for chart display
(c): View the instructions