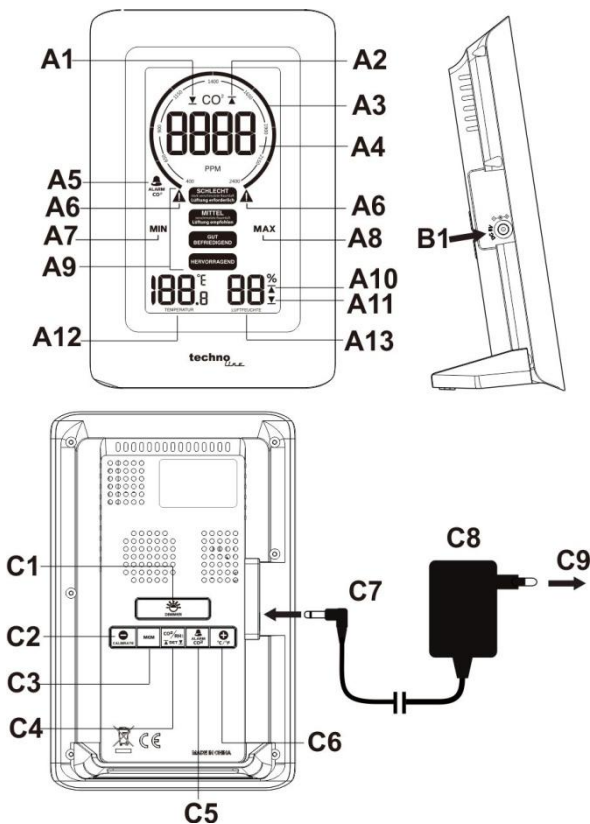


WL 1030 – Instruction manual

Overview



EN1

A – Front view

- A1 – CO2 low alert icon
- A2 – CO2 high alert icon
- A3 – CO2 moving chart indicator
- A4 – CO2 readout
- A5 – CO2 sound alarm icon
- A6 – CO2 warning icon
- A7 – MIN icon
- A8 – MAX icon
- A9 – Ventilation recommendations
- A10 – Humidity high alert icon
- A11 – Humidity low alert icon
- A12 – Indoor temperature
- A13 – Indoor humidity

B – Side view

- B1 – Power adapter connection point

C – Back view

- C1 – “DIMMER” button
- C2 – “-“ and “CALIBRATE” button
- C3 – “MEM” button
- C4 – “CO2/RH% / SET” button
- C5 – “ALARM CO2” button
- C6 – “+“ and “°C/°F” button
- C7 – Insert DC jack to power up your item
- C8 – AC/DC power adapter
- C9 – Connect AC plug to household power socket

Main features

- Triple color displays of CO2 level, temperature and relative humidity
- Non-dispersive infrared (NDIR) gas sensor for CO2 detection
- Wide CO2 measuring range from 400 to 5000 PPM
- Color display of ventilation recommendation on basis of CO2 concentration in the air
- Instant and time weighted average of CO2 reading (15 minutes / 8 hours)

- Max-Min-Average value memory of last 24 hours
- Adjustable CO₂ high or low value alert with optional alarm sound for high value alert
- Adjustable humidity high or low value alert (visual only)
- Automatic baseline calibration on CO₂
- Backlight with adjustable brightness levels
- Built-in memory chip to save settings when power is off
- Table standing
- Power supply: 5V~1.2A adaptor **KA0601A-0501200EUS** (included)

Installation

Plug in the enclosed 5V-1.2A AC/DC adaptor to an AC wall outlet and then the DC jack to the back left side of your WL 1030 (B1). The display will come on with the relevant temperature and relative humidity.

Your CO₂ reading shows “150” and starts to countdown in seconds with a moving chart. Relevant CO₂ data will be displayed within 2.5 minutes. It will continue to calibrate itself and will display the correct CO₂ data within 24 hours.

If the AC power is interrupted, the monitor does not work; the display and the backlight are turned off. The settings of your item will be kept by the internal memory chip so your WL 1030 will function again after the AC power resumes.

Ventilation recommendation on the basis of CO₂ concentration in the air

Measuring range	Display status
Over 2000 ppm eq	 SCHLECHT stark verschmutzte Raumluft Lüftung erforderlich 
1501 – 2000 ppm eq	SCHLECHT stark verschmutzte Raumluft Lüftung erforderlich
1001 – 1500 ppm eq	MITTEL verschmutzte Raumluft Lüftung empfohlen

601 – 1000 ppm eq	GUT BEFRIEDIGEND
400 – 600 ppm eq	HERVORRAGEND

Your CO₂ monitor measures and displays the CO₂ in PPM with color ventilation recommendations:

The   icons flash when the current CO₂ exceeds 2000 ppm.

To set high alert and low alert of CO₂ and humidity

1) Press and hold the “**CO₂/RH% / SET**” button (C4), the CO₂ digits “**400**” (default) flash and the  icon (A1) appears. Press the “+” or the “-” button to adjust the low alert level of CO₂ in steps of +/- 10 PPM. Lowest alert level is 400 PPM.

2) Press the “**CO₂/RH% / SET**” button (C4) again, the CO₂ digits “**2000**” (default) flash and the  icon (A2) appears. Press the “+” or the “-” button to adjust the high alert level of CO₂ in steps of +/- 10 PPM. The highest CO₂ alert level is 5000 PPM.

3) Press the “**CO₂/RH% / SET**” button (C4) again, the humidity digits “**35%**” (default) flash and the  icon (A1) appears. Press the “+” or the “-” button to adjust the low alert level of RH% in steps of +/-1%. Lowest alert level is 20%.

4) Press the “**CO₂/RH% / SET**” button (C4) again, the humidity digits “**70%**” (default) flash and the  icon (A2) appears. Press the “+” or the “-” button to adjust the high alert level of RH% in steps of +/-1%. Highest alert level is 95%.

5) Press “**CO₂/RH% / SET**” button (C4) again to confirm and end setting. The WL 1030 returns to normal display mode.

Notes:

- Press and hold the “+” or the “-” button to accelerate the setting process.
- Your WL 1030 will store your settings and exit the alert set mode when no button is pressed in approximate 10 seconds.

4 different alert set-ups:

CO2 low alert (default setting 400 ppm eq.)

CO2 high alert (default setting 2000 ppm eq.)

Humidity low alert (default setting 35%)

Humidity high alert (default setting 70%)

When the measured CO2 or humidity reaches the set high / low alert level, the related  (A2) or  (A1) icon appears and flashes to remind you.

To use the acoustic CO2 alarm (for high alert)

1) Press the “**ALARM CO2**” button (C5) once to turn on the CO2 alarm. When the alarm is on, the CO2 sound alarm icon (A5) appears on the display.

2) When the measured CO2 reaches the set high alert level, both the  (A2) and CO2 sound alarm icon (A5) flash and an audible beep sound will be given continuously. The beep sound will accelerate when the measured CO2 level exceeds more over the set alert level.

If this happens, please open the windows, adjust the air ventilation and avoid too many people gathering together to improve the air quality of your environment.

3) Press the “**ALARM CO2**” button (C5) button to disable the CO2 sound alarm.  icon (A2) remains flashing if CO2 exceeds the set high alert.

To view the maximum (MAX), minimum (MIN), 15-minute, 8-hour time weighted average value memory

1) Press the “**MEM**” button (C3) one at a time to view the **maximum => minimum** record of the CO₂, temperature and humidity (**MAX** or **MIN** icon appears) and then the **15-minute => 8-hour** time weighted average of the CO₂ level (**15 M** or **8Hr** appears at the lower LCD).

Note: You need to power on your monitor for at least 15 minutes to display the relevant last 15-minute weighted average of CO₂ level (and also power on 8 hours to display the last 8-hour weight average).

2) When the **Max / Min /15-M / 8-Hr** reading is being displayed, press and hold the “**MEM**” button (C3) to reset all records (A4, all digits on the display become “----”) and your monitor will start to store data for the next 24-hour period.

To calibrate the CO₂ sensor

This monitor is factory calibrated to a 400 PPM CO₂ standard concentration.

Caution: Do not manually calibrate the monitor in an environment of unknown CO₂ concentration.

Automatic baseline calibration: Your monitor is equipped with a smart chip so that it will automatically calibrate itself to reduce the drift of the CO₂ sensor for long time usage. It will calibrate itself automatically at the minimum CO₂ reading detected during 7 days of continuous monitoring.

Note: Make sure the place you put your monitor at is well ventilated (with a CO₂ level near 400 PPM) for at least one hour everyday, or you move the monitor to such a well ventilated room for a few hours everyday to perform Automatic Baseline Calibration.

Manual calibration of the CO₂ sensor

1) Place your CO₂ monitor in a 400 PPM calibration surrounding. Power it on and wait for a few minutes until the first CO₂ reading is displayed. Then

press and hold the **"CALIBRATE"** button (C2) until **"CAL"** flashes on the display.

2) In around 20 minutes, the blinking will stop and the initial calibration is completed. Your CO₂ monitor will return to normal display mode and will continue the calibration in the background. It takes 24 hours to let your monitor run and display the correct CO₂ level.

Note: Please wait for your CO₂ monitor to complete the calibration process by itself. Do not press the **"CALIBRATE"** button (C2) or any other button during the process.

Temperature

In normal display mode, press the **"°C/°F"** button (C6) to switch between temperature display in °C or °F.

To adjust the display brightness

Press the **"DIMMER"** button (C1) to adjust the brightness of the display from High to Low to Off.

Troubleshooting

No display or functions

Check the AC/DC adaptor is properly connected.

Response time

Ensure the air flow channels at the back of the monitor are not blocked or covered.

CO₂ reading shows "Err"

The CO₂ sensor is not working properly. Unplug the AC/DC adapter (C8) for 10 seconds to insert it to your monitor again.

Care and maintenance

1. Place your monitor on a stable surface, away from sources of direct sunlight or excessive heat or moisture.

2. Clean your monitor with a soft cloth moistened only with mild soap and water. Stronger agents such as Benzine, thinner or similar materials can damage the surface of the item. Make sure the monitor is unplugged before cleaning.
3. Do not open the back case or tamper with any components of this monitor.
4. Do not plug in any other AC/AC or AC/DC adaptor with incorrect specifications or voltage.

CO2 levels and guidelines

Below are some CO2 reference levels in general:

400~600 ppm	Background (normal) outdoor air level.
600~1,000 ppm	Typical level for occupied spaces with good air exchange.
1,000 ~1,500 ppm	Start ventilation of the room.
1,500~2,000 ppm	Level associated with complaints of drowsiness and poor air. Ventilation recommended!
2,000~5,000 ppm	Level associated with headaches, sleepiness, and stagnant, stale, stuffy air. Poor concentration, loss of attention, increased heart rate and slight nausea may also be present. Ventilation strongly recommended!
> 5,000 ppm	Exposure may lead to serious oxygen deprivation resulting in permanent brain damage, coma, and death. Requires immediate ventilation!

Declaration of conformity

Hereby, Technotrade declares that this product WL 1030 are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU and ROHS 2011/65/EC. The original EU declaration of conformity may be found at: www.technoline.de/doc/4029665610306

Specifications

CO2

Measurement range	: 400 – 5000 PPM
Resolution	: 1 PPM
Accuracy	: +/-5% +50 PPM
Warm up time	: 1 minute
Temperature range	: 0°C to 50°C / 32°F to 122°F
Temperature resolution	: 0.1°C / 0.2°F
Relative humidity range	: 20% - 95%
Relative humidity resolution	: 1%
Operating temperature	: 0°C to 50°C / 32°F to 122°F, < 95%, non-condensing

Out of range display

CO2	: 400 ($\leq$ 400 PPM) / HI ($\geq$ 5000 PPM)
Temperature	: LO ($\leq$ 0°C / 32°F) / HI ($\geq$ 50°C / 122°F)
Relative humidity	: 20% ($\leq$ 20%) / 95% ($\geq$ 95%)
Power supply	: 5V DC, 1.2A adaptor

Default Settings

CO2 alert	: Low - 400, High – 2000
RH% alert	: Low – 35%, High – 70%
CO2 sound alert	: Off
Temperature	: °C
Display brightness level	: High

Precautions

- The item is intended to be used only indoors.
- Do not subject the item to excessive force or shock.
- Do not expose the item to extreme temperatures, direct sunlight, dust or humidity.
- Do not immerse in water.
- Avoid contact with any corrosive materials.

- Do not dispose this item in a fire as it may explode.
- Do not open the inner back case or tamper with any components of this item.

Use the product only for its intended purpose!

Consideration of duty according to the law of electrical devices



This symbol means that you must dispose of electrical devices separated from the General household waste when it reaches the end of its useful life. Take your item to your local waste collection point or recycling centre. This applies to all countries of the European Union, and to other European countries with a separate waste collection system.