IAQ Wall Monitor

800051

Instruction Manual

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INTRODUCTION

The Sper Scientific IAQ Wall Monitor is visible across a large room and continually monitors the primary IAQ (Indoor Air Quality) parameters including: Air temperature, RH, and CO_2. Poor air quality may cause tiredness, inability to concentrate, and even illness (i.e., Sick Building Syndrome).

The IAQ Wall Monitor is ideal for monitoring indoor air quality in crowded public spaces with potentially high levels of CO_2 (carbon dioxide) such as offices, factories, classrooms, hospitals and hotels.

MATERIALS SUPPLIED

Monitor

12V DC Adapter

Instruction Manual

FEATURES

• Displays readings of CO_2, temperature, and RH on a bright green
  LED display with 2¼" high CO_2 digits

• Indicates general CO_2 levels with green (good), yellow (fair), and red (poor) LED lights

• User may set a maximum CO_2 audible alarm

• User may adjust temperature and RH readings to match any standard

• Automatic Baseline Calibration (ABC) and maintenance free NDIR (non-dispersive infrared) CO_2 sensor ensure long-term accuracy, stability and reliability

• ABC function can be turned on or off

• Powered by 12V AC/DC adapter

• Will stand on a desktop or wall mount

LED DISPLAY

• CO_2 LED digit size: 2¼"

• Temperature and RH LED digit size: 1½"

• CO_2 level LED colors: Red (>2,000 ppm), Yellow (<2,000 ppm and >1,000 ppm), Green (<1,000 ppm). LED lights and their corresponding levels are fixed and cannot be changed

• The audible alarm for maximum CO_2 is changeable

KEYPAD

At the right side of the monitor, there is the power port and five buttons (PWR, MODE, SEL▲, TRH▼, UNIT)

FRONT OF UNIT

1 **PWR**: Power on and power off or disable audible alarm

2. **MODE**: Alarm CO_2, temp, RH adjustment mode

3. **SEL▲**: Increase audible alarm threshold value or ABC selection ON or OFF

4. **TRH▼**: Decrease audible alarm threshold value

5. **UNIT**: Switch temperature unit to °C or °F
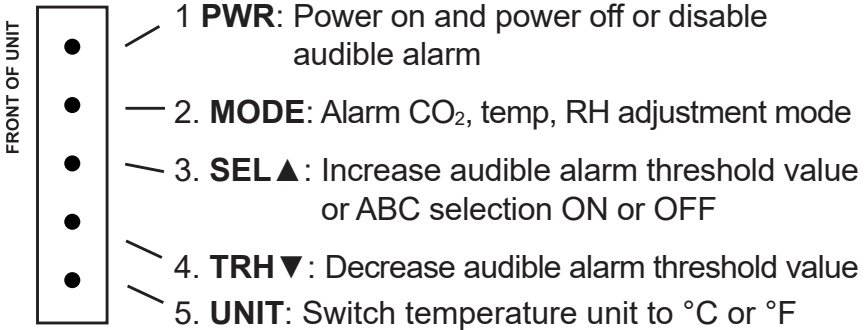
OPERATING INSTRUCTIONS
Power On/Off

1. Press and hold **PWR** for two seconds to turn the monitor on. All symbols on the LED will appear immediately.

2. Press and hold **PWR** for two seconds to turn the monitor off.

MODE AND UNIT SELECTION
Temperature Unit Selection

1. Press **UNIT** to convert temperature unit between °C and °F. °C or °F will show momentarily. Once the desired unit appears on the display, it is confirmed the monitor is displaying that temperature unit.

Adjustable Audible Alarm

1. Press and hold **MODE** for two seconds to enter the alarm setting options. The default CO_2 maximum for the audible alarm is 1,000 ppm, which will be displayed with three flashing LEDs on the top of the monitor.
2. Select the digit you want to change by pressing **UNIT**. The digit will flash once selected.
3. Press **SEL▲** to increase the value or press **TRH▼** to decrease the value.
4. The audible alarm can be completely turned off by pressing **PWR** while in this mode.
5. Press and hold **MODE** for two seconds to exit the alarm setting options.

Temperature & RH Offset Function
WARNING: DO NOT USE THIS FUNCTION WITHOUT A TEMPERATURE MEASUREMENT INSTRUMENT SEPARATE FROM THE IAQ WALL MONITOR

1. Press and hold **MODE** for two seconds, which enters the alarm setting options.
2. Press **MODE** again to enter the temperature offset function.
3. Select the digit you want to change by pressing **UNIT**. The digit will flash once selected.
4. The temperature decimal point digit will flash. Press **SEL▲** to increase the temperature or press **TRH▼** to decrease the temperature.
5. Press **MODE** to enter the **RH** offset function.
6. Select the digit you want to change by pressing **UNIT**. The digit will flash once selected.
7. The **RH** decimal point digit will flash. Press **SEL▲** to increase the RH% or press **TRH▼** to decrease the RH%.
8. To finalize the changes, press **MODE** for two seconds.

Note...

Temperature offset options: -3.0°C to +3°C,
RH% offset options: -9.9% to +9.9%.

CALIBRATION

Automatic Baseline Calibration (ABC)

This is a default CO_2 automatic calibration
function. The ABC algorithm constantly
keeps track of the lowest reading over 14
day intervals and slowly corrects for any
long-term drift detected as compared to the
expected fresh air value of 400 ppm CO_2.
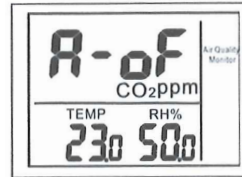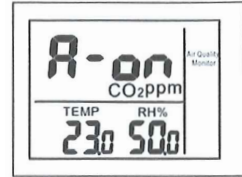
1. Press and hold **SEL▲** to enter the
   ABC function.
2. Press **SEL▲** to change between on or off.
3. Press and hold **SEL▲** to exit the ABC function.

Note...

If the monitor is used in areas without fresh air (maintain an
average CO^2 level over 400 ppm), turn the ABC function off.

Manual CO_2 Calibration

1. Press and hold **UNIT** until "CAL"
   shows on the screen, then it will
   count down from 60 seconds.
2. Once the 60 second countdown is
   finished, the calibration is complete
   and zeroes will appear on the screen.
3. Immediately unplug and re-plug the monitor.
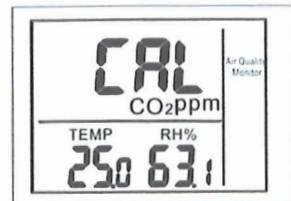
Note...

The ABC function should be on while using manual calibration.
Otherwise, the operation is invalid.

SPECIFICATIONS

	Range	Res	Accuracy
CO_2	0 to 9999 ppm	1.0	75 ppm +5% of rdg
Temperature	0 to 50°C (32 to 122°F)	0.1	±1°C (0 to 40°C) otherwise ±1.5°C, ±2.5°F
RH	0.1% to 99.9%	0.1	±5% (@25°C & 10 to 99% RH) otherwise ±7%
Operating Temp.	0 to 50°C (32 to 122°F), <80%RH		
Storage Temp.	-40 to 70°C (-40 to 158°F)		
Power	12V DC Adapter		
Dimensions	12" × 8½" × 2" (304 × 216 × 51 mm)		
Weight	2.9 lbs (1315 g)		

WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for a period of **five (5) years** from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover probes, batteries, battery leakage, or damage resulting from accident, tampering, misuse, or abuse of the product. Opening the meter to expose its electronics will void the warranty.

To obtain warranty service, ship the unit postage prepaid to:

SPER SCIENTIFIC LTD.
8281 E. Evans Rd., Suite 103
Scottsdale, AZ 85260

The defective unit must be accompanied by a description of the problem and your return address. Register your product online at www.sperwarranty.com within 10 days of purchase.

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