

Important safety information Warning

- ◆ Always cut off power before mounting, removing, and cleaning the monitor.
- ◆ Read all of the information in this manual before mounting the monitor.
- ◆ Notice the supply power voltage of the monitor: 24VAC/24VDC, or 220VAC. Do not install the controller on voltages higher than it

Mounting and Wiring Connection

- ◆ Cut off power first. Simultaneously depress the 2 clips on either of the sides of the monitor gently with your nails or other unsharp tools, then move off the face part.
- ◆ Mount the monitor on the wall, 1.2-1.3 meters above the floor. Do not behind a door, in a corner, near diffuser, in direct sunlight, and near any heat or steam sources. Do not mount the monitor in the direction of the outlet of the Ozone generator or in places where wind pass through, because the internal Ozone sensor can be easily influenced by wind.
- ◆ Mount the wall plate: Two dimensions available (see figure 1). Place the monitor against the wall at desired location; make sure the holes on the wall plate can be drilled through the holes on the wall plate.
- ◆ Connect wires to terminal strips, (see fig.2). Make sure wiring is correct.
- ◆ Cover the face part to the wall plate.

Figure 1 wall plate

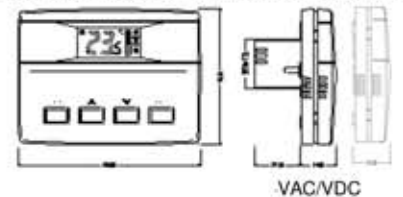
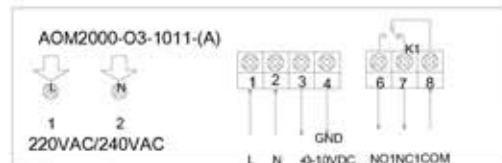
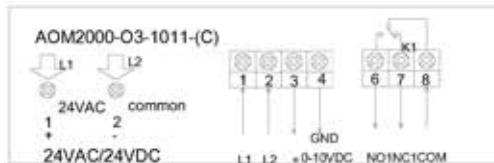


Figure 2 Wiring








LCD and



Operation

1. If you use the monitor for the first time or it hasn't been used for a long time, then it should be energized for more than 24 hours before it come into normal use. If you have placed it in the direction of the outlet of the Ozone monitor or in places where wind pass through, then the measurement of the Ozone monitor will be incorrect. In this situation, please place the Ozone monitor in normal environment and keep it energized for at least 24 hours, and then calibrate its zero point following item 10. Then the monitor will return to normal use again. When the ozone measurement range overstep the maximum measurement, the ozone sensor must be resumed after a long time rest, and then it will return to normal use again.
2. Temperature measurement range is 0~50°C, accuracy 0.5°C, temperature setting range is 5~45°C. Humidity measurement range is 5~99%RH, accuracy 1%RH, humidity setting range is 5~95%RH. Ozone measurement and setting range is 40~1000ppb, its maximum measurement limited is 2000ppb.
3. Turn on: Turn on the monitor by press **power** for 2 seconds. Temperature measurement displays on the right of upper line of LCD, the humidity measurement displays on the left of upper line of LCD. The preheating time of ozone sensor displays on the below line and the time is set to 300 seconds(default). The preheating time can be changed in parameter setup. After it is counted down to 0, ozone level will be displayed.
4. Switch setting value: press **switch** key to switch setting value between ozone and temperature or between ozone and humidity. But setting temperature is un-effective.

- Increase or decrease 1ppb each time by pressing and decreasing key continually.
- Lock setting value: Simultaneously depress the **▼▲** key more than 5 seconds up to the symbol  appearing on the LCD. Then the setting value is locked to avoid wrong operation.
 - Unlock: Under the locked mode, simultaneously depress **▼▲** up to
 - When DIP4 is set to OFF(details see below Parameter Setup):
The relay will turn on when O3 measurement < O3 setting with  symbol appearing on the right of LCD. When O3 measurement \geq O3 setting , the relay will turn off with  disappearing When DIP4 is set to ON(details see below Parameter Setup): The relay will turn on when O3 measurement > O3 setting with  symbol appearing on the right of LCD. When O3 measurement < O3 setting , the relay will turn off with  disappearing
- The differential of ozone setting see Parameter Setup.**
- The scale bars on the right of LCD indicates the analog output. One scale bar indicates 1 VDC voltage output and five scale bars indicates 5 VDC voltage output.
 - Calibration of the zero of ozone: after using the ozone sensor for more than one year, the sensor needs to be calibrated. Put the monitor into the space of zero ozone and preheating it, press switch key for about 20 seconds until **X10** symbol appears, then loosen switch key, the monitor starts auto zero calibration. After 210 seconds, **X10** symbol disappears which indicates the zero calibration is finished.
Cancel the zero calibration: press switch key for about 20 seconds until **X10** symbol appears and then keep pressing switch key for another 20 seconds until **X10** symbol disappears. Then the zero hasn't been calibrated, it's still 0.
Note: Auto zero calibration can be done only when ozone measurement is above 5ppb. And keep the controller in the zero ozone environment before **X10** symbol disappears.

Parameter Setup (Service Manual V.O3_210)

Cut off power and simultaneously depress the 2 clips on either of the sides of the monitor gently with your nails or other unshipped tools. Move the face cover, there is a set of 4 Dipswitches on the right of the circuit board.

DIP1	ON - set parameter	OFF- normal operation	Leaving factory: OFF
DIP2	ON - Fahrenheit	OFF- Celsius	Leaving factory: OFF
DIP3	Un-effective for the model		Leaving factory: OFF
DIP4	ON- For decrease ozone (control ventilation system)		Leaving factory: OFF
	OFF- For increase ozone (control an ozone generator)		

Please put DIP1 to ON, press power key to turn it on, and then set the following parameters, press switch for switching parameters, **▼▲**for adjusting values.

LCD	Parameter	Setting Range	Default
-00	Temperature modification	$\pm 3.0^{\circ}\text{C}/\pm 6^{\circ}\text{F}$	0.0°C
-01	Humidity modification	$\pm 9\text{RH}\%$	0
-02	Ozone value correction	± 30 ppb	0.0
-03	Warm up time of the ozone sensor (No output use, neither 0~10VDC nor on/off, is recommended before ozone measurement becomes stable or warm up is finished.)	1~900seconds	300
-04	The output voltage corresponding with 0ppb (0~10VDC output corresponds with ozone measurement)	0~9.0 e.g. If the setting value is 2.0 and ozone range is up to 1000ppb, then 0ppb corresponds with DC2V, 1000ppb corresponds with DC10V.	0.0
-05	Un-effective for the model		0
-06	Minus differential of ozone of control the delay e.g. the setting value is 10 and O3 setting is 50 ppb, if measured $\text{O3} \leq 50 - 10$ ppb, the relay will be on (DIP4=OFF) or will be off (DIP4=ON).	5~30	20
-07	Positive differential of ozone of control the delay e.g. the setting value is 20 and O3 setting is 50 ppb, if measured $\text{O3} \geq 50 + 20$ ppb, the relay will be off (DIP4=OFF) or will be on (DIP4=ON).	5~100	50
-08	The state of the monitor electrify after power break	0: turn off after electrify 1: turn on after electrify 2: keep on the last state before power broken	2
-09	RS485 communication address	0~250	0
-10	RS485 communication rate	0~5: 1: 9600 bps 2: 14400 bps 3: 19200bps 4:28800bps 5: 38000bps	3

RESET: Put the DIP1 to ON and press switch key for about 25 seconds until the monitor is off, then all the settings return to the default.