

# AQM-103

## Wall Mount/Desktop CO Meter



INSTRUCTION SHEET

M5445/0517

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Made In Taiwan

	AQM-103
Parameter	CO, Temperature, Date, Time
Memory capacity	32000 points
CO measure range	0~999ppm
Sensor	Electrochemical sensor
CO resolution	1 ppm
Beeper audible alarm	YES
Temperature range	0~50°C
Temperature accuracy	±0.6°C/1.2°F
Bakclight	N/A
Power	AAA batteries x4pcs & Universal adaptor

### SUPPLY MATERIAL

- 1) Meter
- 2) Operation manual
- 3) Batteries AAA x 4pcs
- 4) USB Cable
- 5) Universal Adaptor(9V+10%,>=0.5A).Plug size 3.5Ø

### LCD DISPLAY

- 1)CO:Carbon Monoxide
- 2)MD : Month /Date
- 3)HM: Hour / Minute
- 4)Bell🔔: The bell shows means CO alarm is on.
- 5)AIR TEMP:Air Temperature.



**NOTE:** Icons: 6 smiley icons, cfm/p, lps, TWA, STEL ,VOC , NO2, Humidity ,Heat Index EXT, WBGT, HI ,mbar, hPa are void in this model.

When power is weak, BAT icon will shows on the bottom of the screen.

### KEYPAD (MAIN FUNCTION)

- 1) MODE : MAX. display. Edit.
- 2) SEL/R : Increase value.  
Long press to key start function.
- 3) TRH.M : Decrease value.
- 4) UNIT : Toggle Temp. unit. Long press to do Zero calibration.
- 5) POWER: Power on / off, beeper on / off.



**WARNING: Remove batteries when not use to prevent battery leakage (Out of warranty) and power consumption.**

### OPERATION

#### POWER ON/OFF

Put batteries correctly, long press **POWER**, LCD shows current CO reading, Temp., Date and Time.

▲ When using adaptor, please use properly power source, input voltage: 100~240 VAC,50-60Hz  
Output voltage: DC 7.5~9.0V  
Output current: 0.5A,or the meter will be damaged.

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### TAKING MEASUREMENT

The meter starts the measurements when powered on and updates reading every 2 sec.  
When turn on the meter, CO sensor needs warmup 1 min.  
CO alarm default with 30ppm and may adjust threshold setting with audible beep.  
USB cable may not only used for data transmission but also for supplying power by connecting with PC.

### MAXIMUM

Press **MODE** button ,LCD appears Maximum reading since power on of CO and Air Temp.

**Note:**

- a) MAXIMUM:  
The unit automatically records maximum reading since powered on.
- b) RESET MAX:  
Under MAX mode, long press **MODE** button, display will show "CIR" on the top of display.

### SETTING DATE & TIME

The meter interchangeably shows current date and time on the 3rd layer of display, and each cycle is 6 seconds.

The time default is 24-hours format.

**MODE+POWER**-->Enter date/time setting

**SEL/R**--> Number goes up.

**TRH/M**--> Number goes down.

**MODE**-->Edit Year, Month/date and Hour/Minute.

**UNIT**-->Select to edit Month or date, Hour or Minute.

After set up, press **MODE+POWER** to save and exit.

### TEMPERATURE and UNIT(°C or °F)

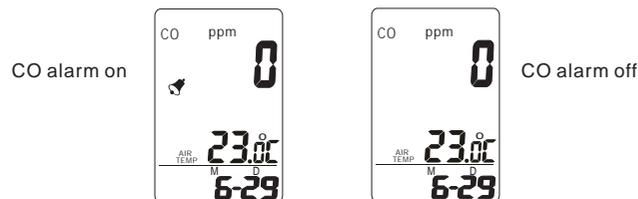
Press **UNIT** button to toggle the temperature unit (°C or°F).

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### ALARM SETTING

CO alarm ON/OFF:

In normal measurement, press **POWER** button to switch alarm on or off. While alarm is on, the red LED will flash if the data exceeding the setting data.



CO Hi alarm setting.

**SEL/R+POWER** → Enter CO alarm setting.

**UNIT** → Change digit.

**SEL/R** → Number goes up.

**TRH/M** → Number goes down.

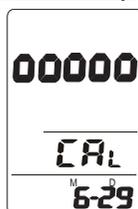
After set up **SEL/R+POWER** to save and exit setting.

### MANUAL CALIBRATION TO ZERO

Before start CO manual calibration make sure the area is ventilation and no CO environment. Ensure the calibration completed, to use adaptor during calibration is recommended.

► CO meter is completed calibration in factory before packed. Manual calibration is only for meter inaccuracy.

When power on, long press **UNIT** button more than 6 seconds, the value will turn into "00000" and flash 60 seconds.



After calibration completed, display will restart automatically to return normal measurement.

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### TEMPERATURE OFF SET

Make sure the meter is off, press **SEL/R+TRH/M** button, then plug in the adaptor at the same time to enter offsetting mode.

**WARNING: DO NOT USE THIS FUNCTION WITHOUT STANDARD INSTRUMENT.**

Example: Standard instrument is 30.2°C, meter shows 30.0°C.Enter temp. offset mode, press **TRH/M** till 0.2 appear.

**Offset range of Temperature as below:**

**Temp.:** -9.9C to +9.9C

a) Air temp. offset

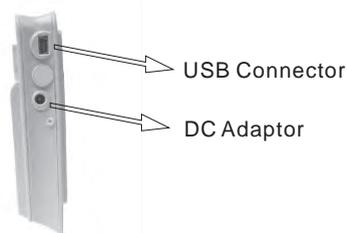
**TRH/M** → Increase value

**UNIT** → Decrease value

After setting up , short press **POWER** to save setting and "°C" icon will flash for a second. Then replug adaptor to turn back normal measurement.

When using datalogger function, please use batteries and adaptor at the same time to avoid power outages and data loss.

### DATALOGGING FUNCTION



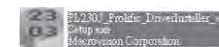
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### Logger setup:

#### A. Install logger driver for Windows

The PL2303\_Prolific\_DriverInstaller\_v110.exe driver is for Windows operation system, follow the installation steps hereunder:

- 1.Put the CD into CD driver, click PL2303\_Prolific\_DriverInstaller\_v110.exe for installation the driver.



- 2.The set up status.
- 3.Click "NEXT" to continue.
- 4.After complete the installation, press "Finished".

#### B.Install the logger software for Windows XP

Please follow the following steps to install the software

- 1.Put CD into CD driver, click " Setup.exe" to install
- 
2. Select the destination folder you are go to save by click "Browse" button
  - 3.Once you finish selecting ,press "Next".
  4. Select "I accept the License Agreement:(s)" and press NEXT button.
  - 5.Click NEXT button when you see the following.
  - 6.Press FINISH button to complete the installation.
  - 7.Restart the Windows XP system

#### C. Run the software from Windows XP

1. Plug the USB cable into USB port, since you have already Installed the USB driver, computer will automatically detect logger.
2. Find "Datalogger in START→ PROGRAMS
- 3.Select logger software folder.

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### Reminder:

Software is installed completed, "Get Datalog's Identifier" shows next page(pic.1), then press **SETTING** button to enter Log setting

**Note:** If logger is not plugged in USB port, the warning message "Reminder: Data Logger is not plugged in USB port!" shows next page(pic.2) Re-plug the logger and restart the software. If the message box still shows as Pic.2 please refer to page 10. "REMIDER" and follow the steps.



### Logger Setting:



#### BASIC:(Pic.3)

##### 1:ID setting

Maximum 20 characters , name your logger press OK button to confirm

► Please type in capital. Space is unacceptable.

##### 2:Current Date/Time

Clock setting, the system automatically shows current date and time of your pc. Press OK to confirm.

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(NOTE: Logger's date & time refer to current pc date and time)

► Please click OK to sync the meter's date and time every time.

#### ALARM&SENSOR:(Pic.4)

1.Edit alarm setting and check it to open the alarm.

2.Appear the parameter.

CO model default with Temp. sensor.

#### SETTING:(Pic.5)

1: **Set sample point (K=1,000 multiple basis within total memory points).**

2.**Set sample rate, start mode to record:**

Select "hour(1~6)", "minute(0~59)", "second(0~59)" time interval.

Select 5 start modes from:

- Immediately
  - Schedule
  - Real-time(PC is always connected with the logger)
  - Key start/off (Start/stop recording by long pressing **SEL/R**)
  - Roll-over (When memory are full, logger covers the earliest memory automatically)
- 3.**Select Unit :** Select Temperature unit °C/°F for recording, press OK to confirm.

#### LOGGER Status:

Before download data, press **LOGGER status** to show ID, Records, Sample rate, Unit.

**NOTE:** Once **Download** button is pressed, recording is inactivated.



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#### Schedule start mode:

Select the date and time meter will start recording.

The recording start time as software's current time not meter's. Please set up the current time correctly.

#### Real-time start mode:



1.After set start mode at real-time,datalogger starts login records. When logger records, the green fan at left corner shows it is under recording.(Meter should be connected with pc all the time,under this mode.)

2.In real-time mode, it shows "STOP" button instead of "DOWNLOAD" at the right corner. Press "STOP" to stop real-time recording.

► Before exit software data has to be saved.

#### Key-start/off mode:

Select the mode to record once long press **SEL/R** button for 3 seconds.

Long press **SEL/R** button again to stop recording. Data has to be downloaded before next key-start. LCD display appear "Logging" at left corner.



**NOTE:** After key off the recording, the data has to download before restart the Key-Start function.

#### Roll-over mode:

After Roll-over mode is selected. Press OK, the meter will start to record. When the data is full, it will cover the earliest memory.

After download the data , long press **SEL/R** button to record without reset up each parameter and selection.

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#### IMPORTANT:

The data is stored in the memory till next setting start. meter will clean previous data automatically. So if you start next data logging, there is no way you can find the data you haven't stored.

### Software function keypad:

#### Download data:

Press **DOWNLOAD** button, data download in few seconds. Graph shows automatically

**NOTE:** Please do not press **DOWNLOAD** button if you won't stop record.

You can press **LOGGER STATUS** button to see record points.

#### Retrieve file:

Press **RETRIEVE FILE** button to select file and show the graph.

#### Save data:

Press **SAVE** button to save txt.file.

After save as txt. may print as pdf. file if needed.

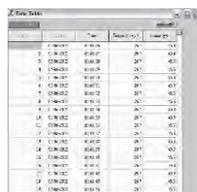
#### View Data Table:

Press **View** button to get data table with details.(pic.6)

#### Print graph:

Press **PRINT** button and print graph.

Follow the print setting below to print full screen graph. Press **OK** to print pdf file.(pic.7)



(pic.6)

#### Print Table Data:

Press table data, the screen shows the record range, enter the start number to the end number (For example: 1~500 or 200~1000...or leave it blank for printing all data ).(pic.8)

Save each pdf. files with different names.

**NOTE:** every pdf page has to print fully 70 records, if request 1~100, there are 2 pages will print out.

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(pic.7)



(pic.8)

### Zoom in/out&Move

Hold **Ctrl** + Click = Screen graph zoom in

Hold **Ctrl** + Click = Screen graph zoom out

Hold **Ctrl** + **Shift** Click = Move screen graph

Press **←** or **→** = Read each measurement .

**NOTE:** May follow the line color selecting, the graph size will go back to default.

### Line color selecting:



1. Click the color box beside the reading(CO, Temp.)

2. Move mouse to review and select color.

3. Click to save, the color appear on line and bar.

#### REMIDER:

If software message box show as Pic2. Follow the next steps.

1. Click "My computer""Content" in hardware content,click "Device manager" to find the listed (COMx) listed under Ports(COM & LPT as below with red line.If you may Prolific USB-to-Serial Comm. Port , it means the logger is connected to computer properly.



2. Remember the Comm port number and go back to software.

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3. Click "Setting" "Comm port" select the port number as you see from step 1, then press OK button.



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The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

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1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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