



# UNI LITE

## MP110 Series

### Quick Start Guide



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PN:M027-4002-000

v1.1

## Warning

- Never operate the monitor when the cover is removed.
- Remove the monitor cover and battery only in area known as non-hazardous.
- Use only mPower's lithium battery part number M500-0038-000 (EVE 14335) (3.6 V, 1650 mAh, 2/3 AA size).
- This instrument has not been tested in an explosive gas/air atmosphere having oxygen concentration greater than 21%.
- Substitution of components will impair suitability for intrinsic safety and void warranty.
- It is recommended to bump test with a known concentration gas to confirm the instrument is functioning properly before use.
- Before use, ensure that the colorless ESD layer on the display is not damaged or peeling. (The blue protective film may be removed.)

## Avertissement

- N'utilisez jamais le moniteur lorsque le couvercle est enlevé.
- Retirer le couvercle du moniteur et la batterie uniquement dans une zone connue comme non dangereuse.
- Utilisez uniquement le numéro de pièce de la batterie au lithium mPower M500-0038-000 (EVE 14335) (3.6 V, 1650 mAh, 2/3 AA grandeur).
- Cet instrument n'a pas été testé dans une atmosphère explosive gaz / air ayant une concentration en oxygène supérieure à 21%.
- La substitution de composants compromettra l'aptitude à la sécurité intrinsèque et annulera la garantie.
- Il est recommandé de tester avec un gaz de concentration connu pour confirmer que l'instrument fonctionne correctement avant de l'utiliser.
- Avant l'utilisation, assurez-vous que la couche ESD incolore de l'écran n'est pas endommagée ou épluchée. (Le film protecteur bleu peut être enlevé.)

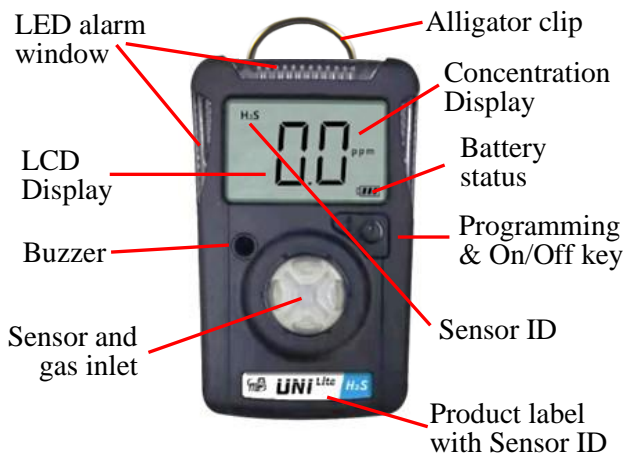
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### Read Before Operating

The User's Guide must be carefully read by all individuals who have or will have the responsibility of using, maintaining, or servicing this product. The product will perform as designed only if it is used, maintained, and serviced in accordance with the manufacturer's instructions.

### User Interface

The UNI's user interface consists of the LCD display, LEDs, an alarm buzzer, one push-button key, an alligator clip, and a chemical sensor.



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### Turning the Unit On

Press and hold the Operation Key () for 3 seconds, until the LCD displays "On" and the unit enters a self-test sequence. The alarm buzzer, vibrator, and LEDs are tested, and the firmware version, (e.g. "VER", "1.0.0.0") and the programmed alarm limits, STEL, TWA, etc. are shown.

After the start-up is completed, the instrument enters the detection mode and displays the real-time gas concentration.

### Turning the Unit Off

In normal display mode, press and hold the Key for a 3-second count down until the unit powers off.

### Normal Mode

In normal mode, the gas concentration is displayed on the LCD continuously and the unit alarms if a pre-set limit is exceeded. Press and hold the Key until it beeps to test the function of the buzzer, LEDs, and vibration alarm. Or short press the Key to cycle through values of STEL, TWA, MIN (O<sub>2</sub> only), and PEAK, and view EVT LOG.

### Event Log

From the EVT LOG screen, long-press the button until it beeps to show the latest alarm event A1 and then short-press the button to cycle through the last 10 alarm events. Up to 50 events can be viewed using mPower Suite.

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## Enter Configuration Mode

With the unit off, double-click the Operation Key and the unit shows “PROG”. Short-press the Key to prompt password entry with the first digit flashing. Short-press the Key to increase the number, and long-press until the beep to move the cursor to the next digit. The default password is 0000. After all four digits are entered, long-press to move to “OK” and short-press to accept and enter Configuration Mode.

## Configuration Mode Menu

In Configuration Mode the user can calibrate the unit and change various operating parameters\*:

- AIR: Zero calibration,
- SPAN: Span calibration
- SET HIGH\LOW\STEL\TWA alarm limits
- SET CAL Change calibration span value
- SET UNIT: Change concentration unit
- EXIT: Exit Config Mode

**Configuration Mode navigation:** In general, long-press the Key to enter the menu item and short-press to scroll to the menu next item, increase a number, confirm, or to move to the item within the menu. Adjust numerical digits as for password.

\*Additional parameters beyond those accessible in Configuration Mode may be set using mPower Suite software, which requires an MP312 4-bay CaliCase.

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## Exit Configuration Mode

Scroll to “EXIT?” and long-press to exit and return to Normal Mode.

## Alarm Limits

Alarms are triggered when readings are above the Low, High, STEL or TWA Alarm limit. To adjust an alarm limit, enter Configuration Mode and scroll to: SET HIGH\LOW\STEL\TWA?.

- Long-press to display the alarm value with the first digit flashing
- Short-press to increase the value and cycle 0-9.
- Long-press to move the cursor to the next digit.
- When finished, long-press to scroll to OK and short-press to save and exit.

## Default Alarm and Span Settings (ppm)

Sensor	Low	High	STEL	TWA	Span
CO	35	200	100	35	100
H <sub>2</sub> S	10	20	15	10	25

## Zero (Fresh Air) Calibration

Zero calibration sets the base line for the sensor and is done in fresh air or other clean air source. Enter Configuration Mode and “AIR?” displays as the first menu item. Long-press to start the 15-second zero calibration count-down, after which a “pass” or “fail” result will be displayed.

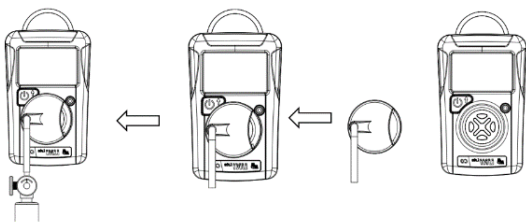
To abort, long-press during the 15-second count, and “ABRT” displays to confirm.

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## Span Calibration

Span calibration uses a known concentration gas to determine the response of the sensor to the gas.

1. Ensure that the CAL value is set to the same concentration as the Span gas cylinder.
2. Attach the Calibration Adapter over the inlet port on the front of unit by pressing it into place.



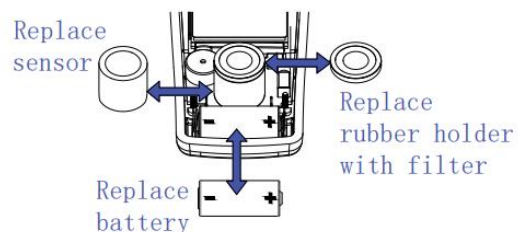
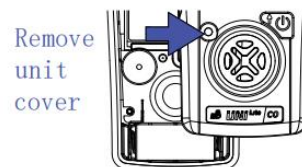
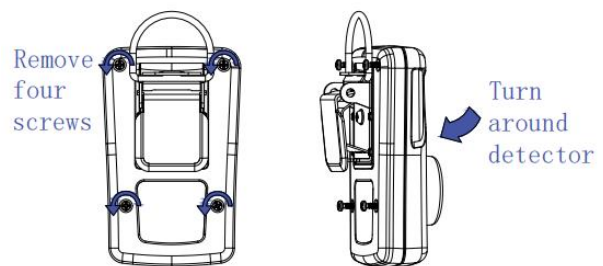
Use a fixed-flow regulator with a flowrate preferably of 0.3 LPM. Up to 0.5 LPM can be used but not higher.

3. Enter Config Mode and scroll to “SPAN?”
4. Start the gas flow and long-press to start the calibration countdown. The default count time is 45 seconds but may vary with sensor type.
5. When finished, a “pass” or “fail” result will be displayed. Turn off the gas supply, remove the calibration adapter, and exit to Normal Mode.
6. To abort at any time during the count-down, long-press and “ABRT” is displayed.

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## Maintenance and Service

**Battery:** MP110 has a built-in lithium battery. If the battery is drained, replace it with a new one. The alarm signal is 1 beep and flash per minute until a new battery is installed.



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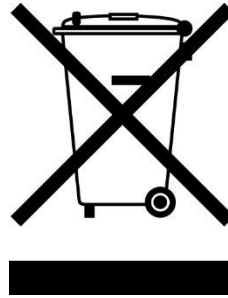
**Battery (continued):** Until the battery is drained, the screen will display "bAT LoW" and the instrument readings will no longer be displayed. After the battery dies, it will continue to sound and light alarm for 1 minute. If the battery has not been drained, the user can long-press the control key for a manual shutdown.

**Sensor:** If used in high-dust environments, purge the sensor inlet opening with compressed air to prevent dust build-up from reducing the sensitivity of the detector. Replace the sensor as needed when it fails calibration or gives noisy readings.

### **⚠ Cautions**

- ⚠ When disassembling the case and replacing the battery, be careful not to damage the internal circuit of the detector and pay attention to the positive and negative poles of the battery.
- ⚠ It is recommended that the detector be calibrated every three to six months or according to company regulations.

## Proper Product Disposal at The End Of Life



The Waste Electrical and Electronic Equipment (WEEE) directive (2002/96/EC) is intended to promote recycling of electrical and electronic equipment and their components at the end of life.

This symbol (crossed-out wheeled bin) indicates separate collection of waste electrical and electronic equipment in the EU countries. This product may contain one or more nickel-metal hydride (NiMH), lithium-ion, or alkaline batteries. Specific battery information is given in this user guide. Batteries must be recycled or disposed of properly. At the end of its life, this product must undergo separate collection and recycling from general or household waste. Please use the return and collection system available in your country for the disposal of this product.