![mPower logo]

Making Powerful Senses

UNI

MP100 Series
Quick Start Guide

⚠ Warning

- Never operate the detector when the cover is removed.
- Remove the detector cover and battery only in area known as non-hazardous.
- Use only mPower's lithium battery part number 1.17.02.0002 (3.6V, 2700mAH, AA size) or part No. ER14505 cell manufactured by EVE Energy Co., LTD
- This instrument has not been tested in an explosive gas/air atmosphere having an oxygen concentration greater than 21%.
- Substitution of components may impair suitability for intrinsic safety.
- Substitution of components will 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 ESD film on the display is not damaged or peeling.

⚠ 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 la batterie au lithium de mPower, pièce No. 1.17.02.0002 (3.6V, 2700mAH, taille AA) ou celle deEVE Énergie Cie., Lté, pièce No. ER14505.
- 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.
- La substitution des composants annulera la garantie.
- Il est recommandé de tester avec un gaz de concentration connu pour confirmer que l'instrument fon ctionne correctement avant de l'utiliser.
- Avant de l'utiliser, assurez-vous que le film ESD sur l'écran n'est pas endommagé ou épluché.

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 MP100's user interface consists of the LCD display, LEDs, an alarm buzzer, two keys: Left Key [Confirm/Number increasing] and Right Key [Power/Cursor moving], an alligator clip, and a sensor.

LED alarm window

Alligator clip

LED alarm window

LCD

Confirm/ Number increasing key

Power/Cursor moving key

Sensor

Buzzer
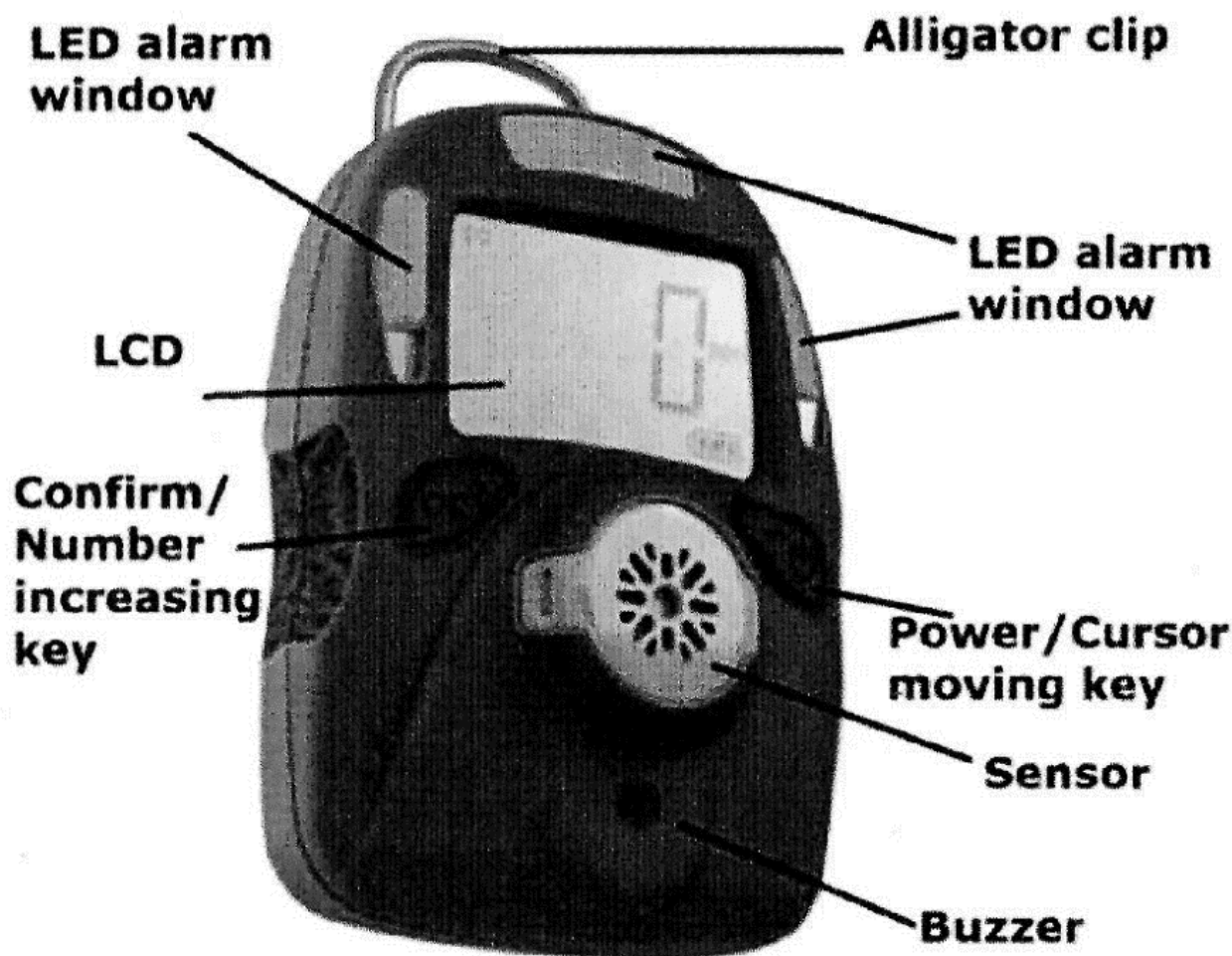
Display

1. Gas name, includes: CO, H2S, SO2, O2, VOC
2. Question mark
3. OK
4. Gas unit, includes: $x10^{-6}$, ppm, %, mg/m^3, umol/mol
5. Battery
6. HIGH, LOW, STEL, TWA alarm
7. Span calibration
8. Zero calibration
9. Number
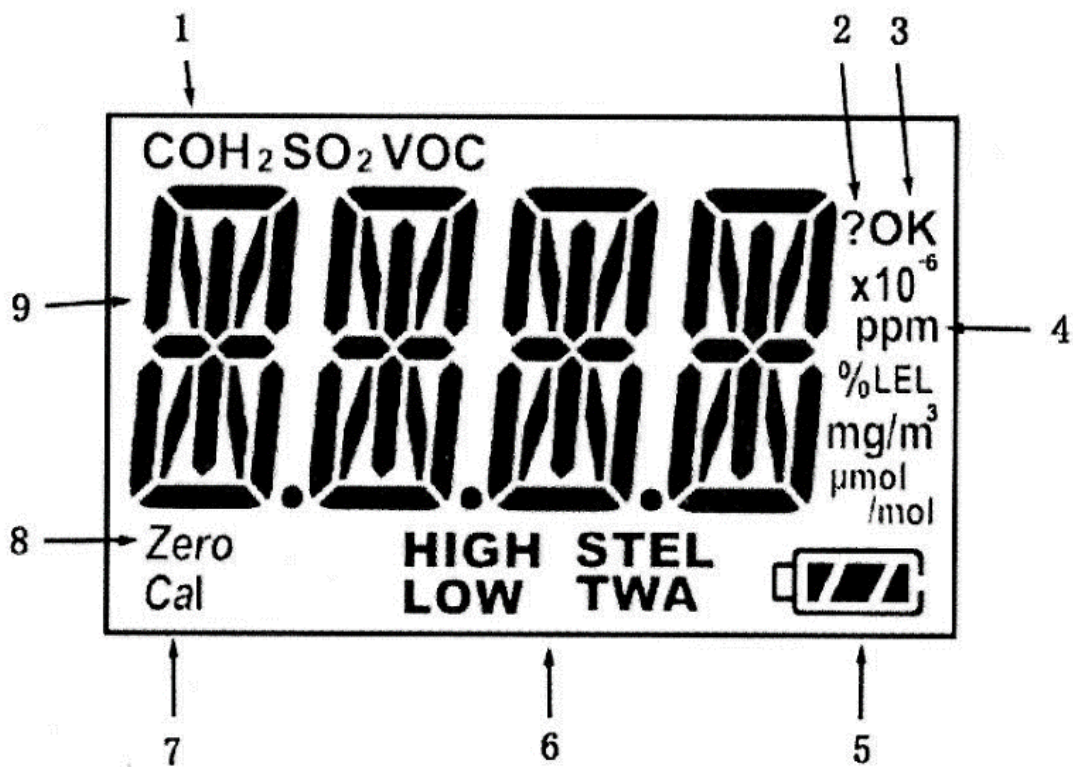
Turning the Unit On

Press and hold the Right Key for 3 seconds, until unit LCD displays "on", buzzer beeps, green LED on, unit is power on.

After power on, unit enter warm up and self test sequence, show the firmware version like "VER","1.0.0.0".

If the sensor is not able to be identified by the instrument or is not installed into the instrument, then the screen toggles between "SEN" and "Err". Otherwise, the following values will be shown High alarm threshold value, Low alarm threshold value, STEL (short-term exposure limit) alarm threshold value, and TWA (time-weighted average) alarm threshold value accordingly.

Normal mode

Unit enter normal mode, start monitoring gas concentration and display on the LCD screen.

User can check some other values like STEL、 TWA、 PEAK、 and MIN (for O2 only) by pressing Right Key.

Turning the Unit Off

In normal display mode, press and hold the Right Key, unit will display 5 seconds count down, with red LED flash and buzzer beeps once per second.

After 4 short flash and beep, unit gives a long flash and beep, LCD displays "Off", unit is powered off..

Enter Config Mode

Press and hold the Left Key and the Right Key together for 3 seconds, the unit enters config mode.

Config mode is password protected, LCD display "PWD" to prompt enter password. To input password, use the Left Key to increase the number, use the Right Key to move the cursor.

After all four digits are input, the cursor will move to "OK", use the Left Key to finish password input and enter config mode.

Exit Config Mode

When LCD displays "Exit?", press the Left Key to exit from config mode back to normal mode.

Config Mode-Menu

In config mode, user can do calibration, change parameters for the unit.

- Zero, Span calibration
- Bump Test
- Change High\Low\STEL\TWA alarm limit
- Change span value
- Change Cal/Bump interval
- Change display unit
- Vibrator enable/disable
- Power on zero enable/disable
- Fast power on enable/disable
- Silence mode enable/disable
- Reset config
- Exit config mode

In config mode, in general, use the Left Key to increase number or confirm, use the Right Key to move cursor or move to next programming item.

Intrinsic Safety

UL/CUL:

CLASS I, GROUP A, B, C, D

CLASS II, GROUP E, F, G

CLASS III

T4, $-20\,°C \leq Tamb \leq 50\,°C$

Zero (Fresh Air) Calibration

Zero calibration is to get the base line for the sensor, it is done in fresh air. When LCD displays "ZERo", press the Left Key to start zero calibration. Unit will start 15 seconds count-down, after count-down is finished, zero calibration result will displayed on the LCD, "pass" or "fail".

If user don't want to do zero calibration during 15 seconds count, press the Right Key, LCD displays "RbRT", zero calibration is aborted.

Span Calibration

Span calibration is to get the metric of the sensor to the gas, it is done with a known concentration gas. When LCD displays "SPAn", apply the known gas to the unit, then press the Left Key to start span calibration. Unit will start count-down, the count-down time is depend on different sensor(normally is 60 seconds), after count-down is finished, span calibration result will displayed on the LCD, "pass" or "fail".

If user don't want to do span calibration during count-down, press the Right Key, LCD display "RbRT", span calibration is aborted.

Bump Test

Bump test is to check if sensor and alarm devices are working properly.Apply known gas to unit, after a time count down, LCD will display "pass"or "fail".

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Calibration Process

1. Attach the Calibration Adapter over the inlet port on the front of unit by pressing it into place.
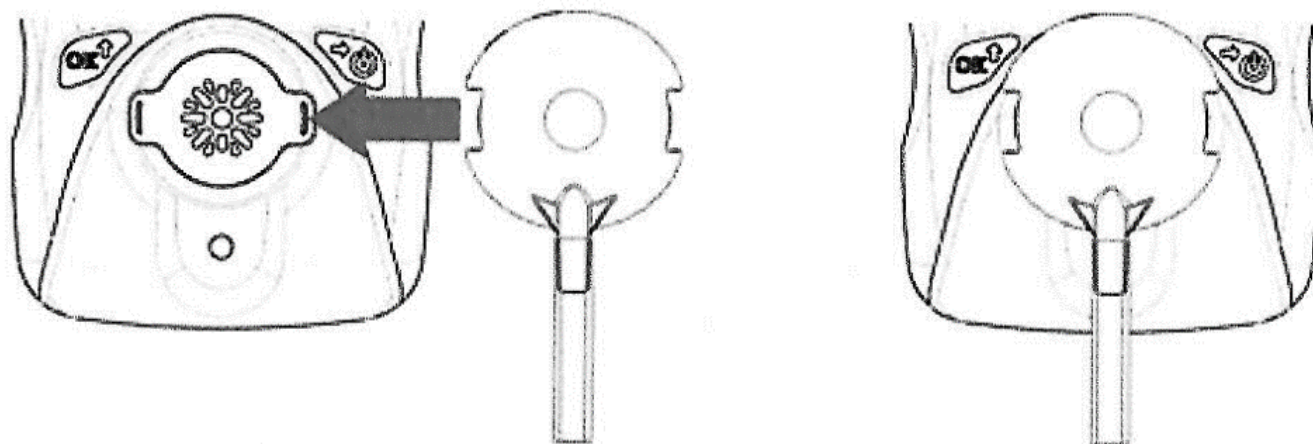
2. Enter the calibration function, open the gas cylinder, press the Left Key, and start calibration after countdown.
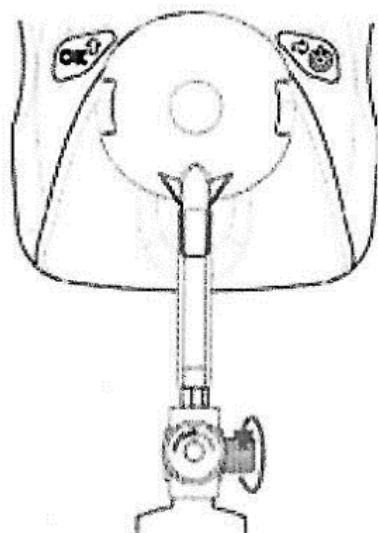
3. Take off the Calibration Adapter (according to the direction of the icon and suggest to make use of the Calibration Adapter's inlet), complete calibration.
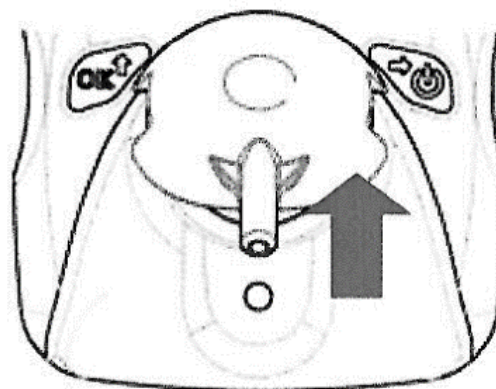
Maintenance and Service

Battery, sensor replacement and other maintenance or service, please contact mPower's service department or refer to the User's Guide.

Year of manufacturing

To identify the year of manufacturing, please refer to the serial number of the instrument.
The fifth to sixth digit in the serial number indicates the year of manufacturing. 00~99 indicates the manufacturing year is 2000 to 2099.

⚠Caution

- **Change battery only in area known to be non-hazardous.**
- **Use only mPower battery PN:1.17.02.0002 or part No:ER14505 cell manufactured by EVE Energy Co.,LTD.**
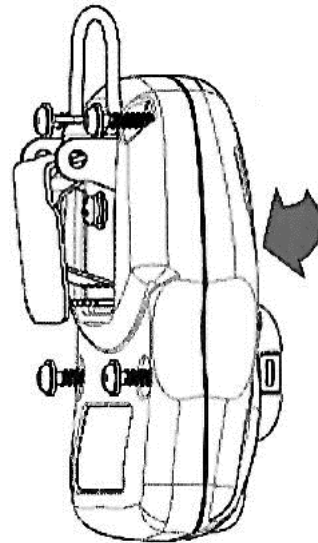
⚠Attention

- **Changez la batterie uniquement dans une zone connue pour être non dangereuse.**
- **Utilisez uniquement la batterie mPower PN: 1.17.02.0002 ou celle deEVE Énergie Cie., Lté, pièce No:ER14505**
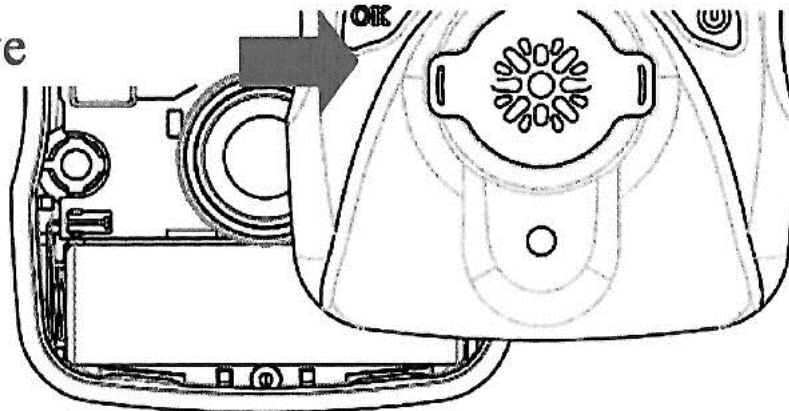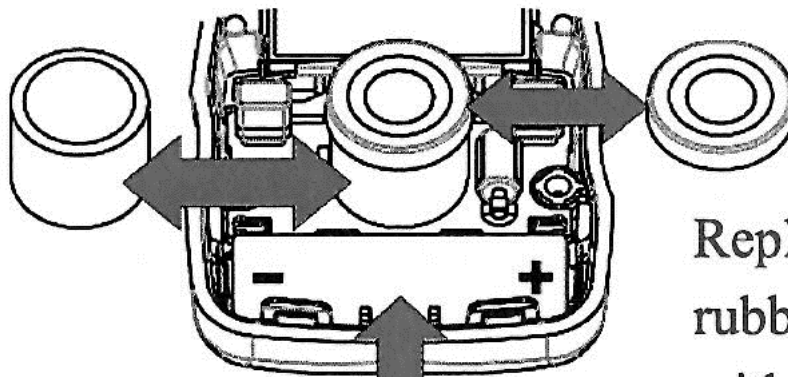
Maintenance

Remove
four
screws
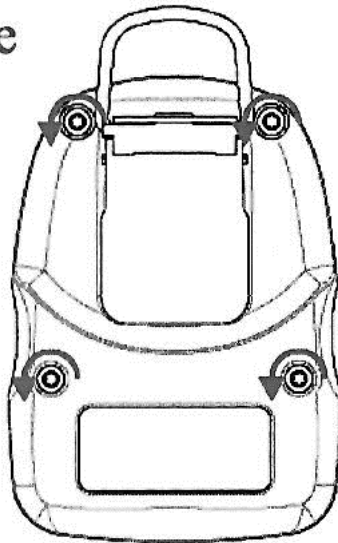
Turn
around
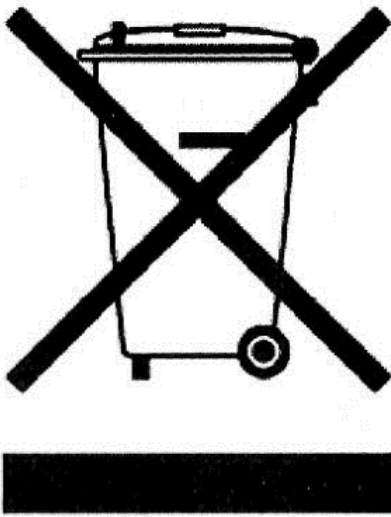detector

Remove
unit
cover

Replace
sensor

Replace
rubber holder
with filter

Replace
battery

*Filter need to be replaced when it becomes discolored,
clogged with particles or draws in liquid, otherwise it
will contaminate sensor and void warranty.

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 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.