

Washington Township Fire Department Standard Operating Procedure

Division 400: Training Section 405: Hazardous Materials Subject 405.01: Multi-Gas Detectors



Date: July 9, 2001
Page: 1 of 2

PURPOSE

To establish the procedures for the proper operation and maintenance of the multi-gas monitoring devices used by the Washington Township Fire Department.

RESPONSIBILITY

It shall be the responsibility of all fire personnel to properly use and care for the multi-gas monitoring devices assigned to their respective station. All officers and senior members of the department shall be proficient in the operations of the multi-gas monitoring devices to assure that any personnel assigned to them are able to utilize this piece of equipment.

DESCRIPTION

Our apparatus carry three types of multi-gas monitoring devices. They are as follows: BioSystems - Model PhD Plus, Industrial Scientific Corporation – Model TMX412, and the Mine Safety Appliances (MSA) – Model Passport.

PROCEDURES

The procedures to activate and field calibrate the multi-gas monitoring devices will be explained for each type of device for better clarification in this bulletin.

BIOSYSTEMS PhD PLUS

1. Push the black button on top of the device once to turn the unit on. [The monitor will go through a systems check. The display will give readings for Oxygen (O₂), Lower Explosive Limits (LEL), Carbon Monoxide (CO), and Hydrogen Sulfide (H₂S)] After the readings appear on the display, the monitor is ready to be field calibrated.
2. Push the black button on top of the device three (3) times (fast.) The display should read “One Button Auto Calibration.”
3. Push the black button on top of the device once. The display should read “Zero Calibration.” (You will see a five (5) second countdown in the lower right corner of the display.)
4. Push the black button on top of the device once. The monitor does a system check and clears (Zero’s out) the display panel. (The display will read “Span Calibration” with a five (5) second countdown in the lower right corner of the display. IGNORE THIS)
5. When display reads what is listed below, it is ready for use.

20.9	0	0	0
O ₂	LEL	CO	H ₂ S

6. To turn the monitor off, push and hold the black button on top of the device until the display states the monitor is shutting down. Then release button.

SPECIAL NOTE: After Step 5, the monitor display may vary slightly due to atmospheric conditions. This is acceptable and the monitor can be used without any problems.

INDUSTRIAL SCIENTIFIC CORPORATION TMX 412

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Date: July 9, 2001

Page: 2 of 2

1. Push and hold the black button on the bottom of the device until the display reads "RELEASE"
2. The monitor goes through a warm up phase (1 – 2 minutes.) The display screen will indicate a numeric countdown.
3. Upon the completion of this countdown, the monitor is ready to be utilized. Any readings displayed on the screen are actual readings.
4. To turn the monitor off, push and hold the black button on the bottom of the device until the display states to "RELEASE."

MINE SAFETY APPLIANCES (MSA) PASSPORT

1. Push the ON/OFF button located on the front panel of the monitor.
2. The display will read "FRESH AIR SET-UP" and "NO" and "YES." Push the reset button below the word "YES."
3. The monitor is now ready to be used. Readings displayed on the screen are actual readings.
4. To turn the monitor off, push and hold the ON/OFF button for five (5) seconds. Monitor will shut off automatically.

MAINTENANCE

After the use of any gas monitoring device, the following guideline shall be followed to assure proper maintenance of each unit.

1. For any reading LESS THAN 100 parts per million, the gas monitor can be placed back on its respective apparatus.
2. For any reading GREATER THAN 100 parts per million, an AVO shall be sent to the Deputy Chief of Operations. This notification will then be forwarded so the gas monitor can be internally re-calibrated.
3. The gas monitoring equipment is internally re-calibrated on a monthly basis by a trained person per the manufacturer's specifications.
4. Personnel **SHALL NOT** make or alter any settings or internally re-calibrate any monitoring device unless authorized by the Deputy Chief of Support.

Approved By,

Chief Kenneth C. Parks