

Portable gas detectors are an important part of your worker's safety equipment. However, only fully functioning gas detectors can reliably warn and protect against gas hazards, thus helping to protect life and avoid accidents.

Comply with standards and ensure correct operation in daily use

Bump testing before each day's use is the accepted best safety practice to verify proper instrument functionality. Bump test frequency is often stipulated by national, regional or corporate regulations. For example, the European Standard EN 60079-29-2 and the International Standard IEC 60079-29-2 stipulate functional gas detector checks before each day of use. The bump test is sometimes confused with the Fresh Air Setup (FAS), which allows an instrument sensor to establish a zero baseline, within a limited window of correction. However, this does not confirm whether the sensor can detect gas. This can only be done by checking the sensor's ability to respond to a challenge gas within a given amount of time.



Don't put yourself or your employees' life at risk by non-adherence to the regulations or taking short cuts with performing fresh air setup instead of bump testing.

Performing automatic bump testing will alert your worker of non-functioning sensor and gas inlet blockages, even if this is not visible to the human eye. While manual operations carry some risks associated with human error and the need for repeated training, relying on automatic test stations provides you with the advantage of intuitive and simplified testing.

Maintaining the device in accordance with safety recommendations

Safety requirements are detailed in every gas detector's user manual to make sure that the user understands not only how to operate the device, but also what is needed to maintain a smooth, long term operation. Currently the best gas detectors are designed for minimum service operations, if equipped with durable sensor technology that is available on the market. **Calibration will be the main test that must be done on a regular basis, so it is necessary to make sure that your workers perform it with the required attention and frequency.**

A calibration is the way to adjust the sensor's output to match the known traceable calibration gas concentration, reducing effects of over-exposures, poisoning or physical shocks. Small savings that can be achieved by not performing regular device calibration, can have adverse results in premature sensor damage and inoperability of your detector. Consider that it could be needed by your workers for urgent and important tasks, sometimes influencing the ongoing operation of sites that may be worth millions.



The best way for ensuring a high accuracy and reliability of calibration, is to perform it through an automated test station. Such system needs to be able to trigger a calibration each time bump test fails and if possible recognize the correct gas mixture against a set of different sensors installed in the instrument, counteracting the possible use of expired or wrong test and calibration gas. Even though, calibration gas manufacturers now offer extended expiration periods for their products, your workers may be tempted to fully use up some remaining amount of gas, that has gone past its expiration date.

Unfortunately, after the expiration date certain toxic gases diffuse and show a lower concentration comparing to the values included on the label, which can ultimately lead to an inaccurate calibration of your instrument.

Always make sure that your detectors are not only regularly calibrated but the calibration gas used for this operation is within validity date.

The GALAXY® GX2: MSA's solution for automated testing and calibrating

Supporting you in care and maintenance of MSA's ALTAIR® family detectors you are now able to benefit from simple, intelligent testing and substantial cost savings.

Using the GALAXY GX2 Automated Test System, MSA detectors can be tested and calibrated fully automatically, providing peace of mind that the equipment complies with the standards and manufacturer recommendations as explained below.



Easy testing

- Bump testing and calibration are predefined as test procedures, allowing you to trigger the respective operation by simply inserting the instrument into the test station, and to obtain a visual indication and confirmation of test results.
- Gas setup and expiration time of gas canisters is automatically indicated through RFID which is read by the test station when a new bottle is installed. Moreover, the test station will check if the correct gas type is applied and will retain previous calibration data, preventing the test to start, in case your worker uses wrong or outdated gas.

Cost savings

- Intelligent test options allow the GALAXY GX2 station to skip a non-scheduled calibration providing reduction in calibration gas consumption. Using another convenient function when calibration is triggered after negative bump test results, can bring even more savings. The instrument passing bump test will not need calibration thus up to 4 times less gas will be used during the test, still ensuring safe operation of the device.
- Simultaneous testing of multiple instruments (even such with completely different configurations) can provide significant cost reductions of up to 10 times, in your man-hour expenses, depending on the complexity of the fleet and frequency of testing.

MSA is here to help you mitigate risks associated with maintaining the detectors. Do not hesitate to test our GALAXY GX2 solution for your MSA detectors and ask NOW for a demo: <https://msane.ws/GX2demo>

For further information please also visit our website: <https://msane.ws/GX2en>