

# Why is bump testing a matter of safety?

Information Note



## Why is bump testing your portable gas detector before each day's use a matter of safety?

Portable gas detection is an important part of a workers' safety equipment. However, only fully functioning gas detectors can reliably warn and protect against gas hazards, thus protecting life and avoiding accidents. All sensors from all detectors on the market will eventually reach the end of their life. Some will reach their end of life suddenly, while some will reach their end of life over a longer period of time. Environmental influences and harsh application conditions can affect the functionality of gas detectors.

**Bump testing the gas detector will alert the user of a non-functioning sensor and if a gas inlet has become blocked, even if the blockage is not visible to the human eye.**

The traditional bump test consists in checking the instrument's ability to respond to a challenge gas within a given amount time.

**With the MSA-exclusive XCell Pulse Technology, this is now possible to perform a bump test, without the need of gas.**

It is possible that dirt or mud blocks the gas entry of an instrument. But no detector on the market can warn you that gas entries are blocked. In these circumstances, a fully functioning sensor simply will not see gas.



The MSA ALTAIR family of gas detectors is the only one on market showing a Bump Test checkmark ✓ on their display for 24 hours after a successful bump test.

**Only a bump test quickly confirms that the gas entries are free and your sensors function, or not.**

**Bump test frequency is often stipulated by national or corporate regulations; Bump testing before each day's use is the accepted best safety practice to verify proper instrument operation.** For example, the European standard EN 60079-29-2 and the International Standard IEC 60079-29-2 stipulate for gas detectors a functional check before each day of use. The German BG RCI (Employers' Liability Insurance Association for Raw Materials and Chemical Industry) also requires a functional check before each day of use in their code of practices T021 and T023.

## Why is calibrating your gas detector important?

Calibration is the adjustment of the sensor(s) output to match the known traceable calibration gas concentration. It ensures maximum accuracy of the instrument, so should be performed if high accuracy is desired and also if a bump test fails. Calibration is important since all sensors on the market will have some amount of drift over time and are subject to potential uncontrollable effects such as over-exposures, poisoning, physical shocks, extreme environmental changes etc. These types of events can cause sensors to be less accurate.



## Why use the GALAXY GX2 Automated Test System for bump testing & calibration of ALTAIR family detectors?

To be safe and save time, gas and money!



The **GALAXY GX2** Automated Test System provides simple, intelligent testing and calibration of MSA ALTAIR®, ALTAIR 2X, ALTAIR PRO, ALTAIR 4X, ALTAIR 4XR and ALTAIR 5X Detectors.

The easy-to-use automated test stand offers high performance as either stand-alone unit or integrated portable detector management system, enabling total data access and control of the MSA ALTAIR family gas detector fleet.

**Safety io Grid Fleet Manager** is designed for proactive safety management; gas exposure email alerts, direct data input, live filtering, test and exposure queries, collecting and printing reports allow greater control over the user's MSA ALTAIR Family of gas detectors.

- Colour touch screen for ease of setup and viewing
- Extremely simple to use; testing starts automatically without touching a single button
- Simultaneous testing of up to ten instruments optimised for use with MSA's XCell® Sensors and can provide up to 50% cost of ownership reduction
- At-a-glance indicators include low calibration gas volume, expiration warnings and test stand status.
- Safety io Grid Fleet Manager provides proactive safety management, dashboard overview and total record-keeping
- 19 languages available for test stand to simplify usage and reduces training

**ALTAIR 2XP H<sub>2</sub>S with XCell Pulse Technology**  
**Features the first stand-alone bump test, which eliminates the need for bottled gas!**

- Bump test anytime, anywhere
- Based on proven science and patented sensor capabilities