

3M™ Multi-Gas Detector 740 Series with Data Logging Software – Bump Test

A bump test, performed before every use, is done by checking the sensors response to a known concentration of certified calibration gas. Although the sensors are calibrated prior to shipment from the factory, it is recommended that a bump test or calibration be performed prior to initial use.

CAUTION – CSA Standard C22.2 No. 152 states that before each day's usage sensitivity must be tested on a known concentration of the currently selected gas equivalent to 25-50% LEL of full scale concentration. Accuracy must be within 0% - 20% of the actual. Accuracy may be corrected by performing a calibration of the unit.

To perform the bump test:

- a) Go to a non-contaminated environment to perform the calibration.
- b) Turn on the unit and allow it to warm up.
- c) Choose the appropriate certified gas by matching the sensors with the gas mixtures noted in the user instructions.
- d) Place the calibration hood on top of the sensor inlet.
- e) Secure it tightly with the retaining screws.
- f) Attach a hose from the correct certified calibration gas bottle to the detector gas inlet and ensure that the valve is turned on.
- g) Apply the calibration gas for a period of at least 2-3 minutes to ensure sufficient response time.
- h) Compare the displayed values with those on the gas cylinder.
- i) If the displayed measurement is within 10% for oxygen or 0-20% of the applied gas for the combustible sensor, the unit is ready for use.
- j) Close the valve on the gas cylinder and disconnect the tubing from the detector.
- k) Remove the calibration hood.
- l) The unit ready for use.
- m) If the displayed measurement does not meet the criteria for a pass, a calibration must be performed.

