

3M™ Multi-Gas Detector 950 Series – OPTIONAL PUMP: OPERATION & MAINTENANCE

If ordered, the detector will come equipped with an optional pump module. The pump option includes:

- Internal pump
- User accessible filter
- External hose attachment fitting
- 16 ft of 1/4" o.d. x 1/8" i.d. hose
- Pump cover.

The pump draws air from the surrounding environment, or through the attached tubing, first passing the air through a filter before entering into the sealed pump. Discharge air from the pump is then directed to the base hood and via channels to the various sensors in sequence.

The order of the sensors in the unit is an important consideration as the airflow first passes over the sensor on the left side of the detector (Location 1) and exits at the right side of the detector after the last sensor (Location 5). During start-up the correct order will be confirmed and if a change is recommended a message will suggest the correct order.

Before installing the base hood, ensure it is free of dirt and the passages or grooves are free, clear and clean. Ensure the air discharge hole from the pump is clean and clear and that the inlet air filter is installed and clean. The pump will start automatically when the BASE HOOD is screwed firmly in place.

A pump stall, caused by decrease air flow, will occur if the air filter becomes clogged, inlet is blocked or the external hose becomes blocked. In the event of a pump stall, the LCD screen will display the message "PUMP STALLED – RESTART?" and the buzzer will sound. The detectors yellow and red LEDs will alternately flash.

At this point, the detector should be turned off and the hood removed. Inspect the pump setup:

- a) Ensure the air filter is clear and free of any condensation or dirt.
- b) Remove the sampling hose to determine if the blockage is within the detector or the sampling tube.
- c) Check the air intake, or hose connection, to ensure that it is free of contaminants.
- d) Ensure that the filter material does not block the entry hole (the entry hole is a small hole at the top of the air filter cover plate. This aligns with an equal sized hole in the black plastic above the filter and leading to the hose connection.

The air filter should be replaced if it is dirty or damp. To replace it:

- a) Unscrew the central retaining screw and lift off the filter cover.

- b) Clear the opening of any foreign material.
- c) Ensure that the sealing surfaces are clean and dry.
- d) Remove the filter.
- e) Replace the filter with a new one.
- f) Re-secure the top cover and tighten the retaining screw.

To confirm that the air filter is properly sealed in place and that there are no air leaks:

- a) Ensure the detector is on.
- b) To activate the pump, install the hood.
- c) Block the air intake.
- d) The “PUMP STALL” warning should be activated within a few seconds.

If the “PUMP STALL” warning does not activate, that indicates a leak in the system. The pump should be inspected as reviewed earlier.