

3M™ Multi-Gas Detector 740 Series with Data Logging Software – Battery Maintenance

The battery must be replaced in a non-hazardous area only. Battery replacement is not an intrinsically safe operation.

The detector may be operated with a lithium ion battery or with 3 approved AAA size alkaline batteries. The detector will recognize a new type of battery pack upon start up.

See the user instructions for a list of approved batteries and model number. **The 3M™ Lithium Ion Battery (921-020-201)** and Duracell® Copper Top® Battery will be shown in this video demonstration.

Only the batteries listed have been evaluated to meet the requirements of intrinsic safety for CSA approval. Use of batteries other than those listed in the user instructions may impair intrinsic safety.

The battery should be replaced when the detector indicates a low battery condition or according to an established change schedule. To remove it:

- a) Turn off the unit.
- b) Unscrew the four screws on the back cover plate of the detector and remove the cover plate.
- c) Slide the Li-ion pack towards the bottom of the detector and pull it out or,
- d) remove the AAA batteries from the battery compartment.
- e) Place the replacement Li-ion battery pack into the battery compartment or,
- f) place three AAA batteries into the battery compartment noting their orientation.
- g) Replace the back cover and four screws.
- h) Turn the unit on to confirm proper operation.

Charging the Li-ion Battery

The 740 Detector comes with a charger (**3M Part No. 457-221-005**) that can be used with 110-240 volt and 50 or 60 Hz electrical systems. The charger comes with 4 optional plugs to fit most electrical outlets found throughout the world. To assemble the charger:

- a) Select the plug for the system you are using.
- b) Slide the charger on the plug until it clicks into place.

- c) To change plugs, depress the retaining clip and slide the plug up and off the charger.
- d) Before using the charger, ensure the plug is securely attached.

Very low power will be indicated by the flashing words “Low Power.” The unit also has an audible alarm to warn the user that recharging of the battery is required.

To recharge the battery:

- a) Turn off the unit.
- b) Plug the charger into a suitable outlet (output of the charger is 12V DC 1000 mA).
- c) Plug the charger into the receptacle near the bottom of the detector.
- d) Charging is indicated by moving bars within the battery symbol on the LCD.
- e) Charging is complete when the LCD displays “CHARGING COMPLETE.”

Recharging discharged Li-ion batteries requires approximately 3 hours under normal conditions. Charging batteries at temperatures less than 50°F (10°C) or greater than 86°F (30°C) may reduce battery run-time and/or battery life.