

3M™ Multi-Gas Detector 950 Series – 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 an alkaline battery pack or a nickel metal hydride battery pack. The battery packs are interchangeable. 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™ Nickel Metal Hydride (NiMH) Battery 921-022-000 and Energizer® EN91 Battery will be shown in this video demonstration.

The Nickel Metal Hydride Battery should be replaced when the detector indicates a low power or replace battery condition or according to an establish change schedule. To remove it:

- a) Turn off the unit.
- b) Unscrew the two retaining screws located at the base of the detector.
- c) Loosen the battery pack and remove it from the detector.
- d) Dispose of the NiMH battery pack in accordance with local regulations. The NiMH is not designed to be repaired and the entire pack must be replaced as needed.
- e) Insert the battery pack back into the base of the detector.
- f) Secure the pack with the two retaining screws, ensuring they are properly tightened.

Proper operation is indicated by a “POWER ON” message on the LCD.

To change the alkaline batteries:

- a) Turn the monitor off.
- b) Remove the two screws from the base of the detector
- c) Slide the plastic case out of the detector.
- d) Unscrew the single retaining screw at the internal end of the battery pack.
- e) Slide the plastic cover away and up from the base.
- f) Replace the batteries using an approved type listed in the user instructions.
- g) Insure the correct polarity is observed (polarity is marked on the inside of the battery compartment).
- h) Replace the plastic cover.
- i) Secure the plastic cover with the retaining screw.
- j) Insert the battery pack back into the base of the detector.
- k) Secure the pack with the two retaining screws, ensuring they are properly tightened.

Allow 30 seconds for the battery test to complete before turning on the unit to confirm proper operation.

Charging the NiMH Battery

The 950 Detector comes equipped with a universal charger (3M Part No. 457-221-005) that can be used with electrical systems 100-240 volts and 50/60 Hz. 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 it onto the charger until it clicks into place.
- c) Ensure it is securely attached to the charger before using it.
- d) To remove the plug, depress the retaining clip.
- e) Slide the plug up and off the charger.

The NiMH battery should be recharged when the detector alarms and the LCD warns “LOW BATTERY” or “DEAD BATTERY.” To charge the NiMH battery:

- a) Plug the charger into a suitable AC electrical current outlet.
- b) Plug the charger output into the receptacle near the bottom of the detector.
- c) If the detector is on, you will see moving bars within the battery symbol on the detector LCD.
- d) If the detector is off, within a few seconds you will see a message “CHARGING IN PROGRESS” as well as the moving bars within the battery symbol.
- e) At the bottom of the unit and within the label of the NiMH battery pack, there is a small LED. This LED indicates the status of the charging process.
 - a. Red – continuous, indicates fast charging
 - b. Red – flashing, indicates battery conditioning, or a cooling period is in progress if the battery is too hot. The continuous red LED should normally follow, however it may take up to one hour.
 - c. Green – indicates that the charger is plugged in and that the recharging cycle is complete.
- f) In addition to the green LED, charging is complete when the LCD battery symbol is “full” and the outline is flashing.
- g) If the detector is off the LCD will also display a message indicating that charging is complete.

IMPORTANT: Disconnect the NiMH battery charger from the detector before unplugging it from the wall.