

Overview

Bullard Thermal Imager batteries utilize a high-heat Ultem® thermoplastic outer housing that protects specially procured nickel metal hydride (NiMH) rechargeable battery cells. These cells are designed to deliver consistent, reliable power over a long life. However, the performance of rechargeable batteries can be affected by how the batteries are maintained, charged, and stored. To help maximize the performance of your Bullard Thermal Imager batteries, develop a clear formalized plan for maintaining, charging, storing, and replacing your Bullard Thermal Imager batteries.

Battery Maintenance

- On a weekly basis, perform the following:
 1. Verify that the batteries do not show physical signs of damage
 2. Rotate the batteries in your imagers and charger units
 3. Fully charge all of your batteries
- On a monthly basis, perform the following:
 1. Verify that the battery contacts on the batteries and the imagers are corrosion free
 2. Verify that the battery chargers are corrosion free on all primary contacts
 3. If you are not actively using your Bullard Thermal Imager for more than 30 minutes at least one to two times per week, you will want to completely cycle each battery by doing the following:
 - a. Fully charge
 - b. Place battery in imager, and turn imager on
 - c. Allow imager to remain on for approximately one hour
 - d. Fully charge again
- Any regular NiMH battery will normally lose its charge over a period of days and weeks (up to 1% - 2% per day). If a battery is allowed to enter and remain in a state of discharge for an extended period of time (several weeks to months), it will need to be “exercised” in order to restore it to optimal performance. To exercise a battery, follow the steps for cycling your batteries (outlined above) and repeat 3 to 4 times.
- Running the batteries down completely or “deep discharging” will damage the battery cells and may cause the charger to falsely indicate a full charge on batteries that are damaged or will no longer hold a full charge. To prevent this, do not operate a Bullard Thermal Imager for more than 20 minutes once the red LED battery life indicator has become activated, and do not run the imager past the point where the display shuts off.

Battery Charging

- Bullard Thermal Imager batteries may be charged any time during the discharge cycle – e.g. after 30 minutes of use or multiple hours of use. Voltage depression (AKA “memory”) caused by repeated incomplete discharge cycles is not a significant factor for Bullard Thermal Imager batteries.
- **Bullard Powerhouse and Eclipse Powerhouse charging stations must be wired directly to the apparatus battery** through an uninterrupted circuit using a 5 amp fuse to ensure a constant power source of 12-24 VDC in order to properly charge and maintain Bullard Thermal Imager batteries.
 - **DO NOT** wire the Powerhouse or Eclipse Powerhouse to any of the following:
 - **Third-party apparatus battery chargers/savers (i.e. Kussmaul)**
 - **Junction boxes**
 - **Starter/ignition, 12V ports, etc.**
 - Wiring the Powerhouse or Eclipse Powerhouse to any of the above, to a switched circuit, or through a relay may result in improper operation of the Powerhouse or Eclipse Powerhouse and can damage rechargeable battery cells which will adversely affect the performance and life of your rechargeable batteries.
 - For more information on how to properly install Bullard Powerhouse and Eclipse Powerhouse charging stations, you can view the Bullard TV video on YouTube at <http://www.youtube.com/watch?v=cXdh7dNg4AQ&list=UUKYR-01IWtPjUpYc0mhdEVg&index=1&feature=plcp>

Storage

- Prolonged storage of batteries in low temperature (below 15°F) or high temperature environments (above 90°F) or near radiant heat sources may reduce battery capacity.

Disposal

- Damaged or worn-out batteries should be disposed of in accordance with local, state and federal regulations at an approved hazardous waste recycling or disposal facility.

Replacing Bullard Thermal Imager Batteries

- The potential lifespan of Bullard Thermal Imager batteries will depend on the frequency of performing what is recommended above and the amount of use the battery sees in the field. To be sure that you have optimally performing Bullard Thermal Imager batteries available, **follow these guidelines and replace your Bullard Thermal Imager batteries every 12 to 24 months.**
- **Contacting Bullard**
 - For more information about Bullard Thermal Imagers, accessories, and replacement parts (including Bullard Thermal Imager batteries), visit www.bullard.com or contact a Bullard Customer Service Representative at 1-877-BULLARD.