

Lithium-Ion Batteries for the OmniScan Maintenance Guide

Intended Use

The lithium-ion (Li-ion) batteries that are included with OmniScan instruments are designed to provide power exclusively to the OmniScan series instruments. Do not use Li-ion batteries for any purpose other than their intended use.

Instruction Manual

Before use, thoroughly review the *Lithium-Ion Batteries for the OmniScan Maintenance Guide* and the OmniScan user's manual, and use the product as instructed. This maintenance guide contains essential information on how to use OmniScan Li-ion batteries safely and effectively. Keep this guide and the OmniScan user's manual in a safe, accessible location.

Safety Signal Words



DANGER

Indicates an imminently hazardous situation calling attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in death or serious personal injury.



WARNING

Indicates a potentially hazardous situation calling attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in death or serious personal injury.



CAUTION

Indicates a potentially hazardous situation calling attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in minor or moderate personal injury, material damage, particularly to the product, destruction of part or all of the product, or loss of data.

Maximizing the Performance of Lithium-Ion Batteries

Storage Instructions for Rechargeable Batteries

- Exercise the batteries, running the OmniScan on battery power until it turns off or until you get a low-battery warning before recharging. Do not leave the battery dormant for long periods of time. Olympus recommends using the battery at least once every two or three weeks. If a battery has not been used for a long period of time, perform the “New Battery Procedure” on page 2.
- If you do not plan to use the OmniScan on battery power for a few weeks or longer, charge the batteries to between 40 % and 80 % capacity (3 or 4 bars on the battery charge indicator), and then remove and store them in a dry, cool, and clean place. Note that even when unplugged and in the off position, the OmniScan continues to draw a little bit of power from the battery and could completely discharge full batteries in about 15 days.
- As lithium-ion batteries self-discharge over time, remember to check the remaining charge of stored batteries every month or so to make sure they do have 40 % to 80 % remaining capacity and recharge those that do not. Failure to do so may render the battery indefinitely unusable if it falls below a critical level (less than 0 %).
- After a storage period, it is preferable to fully recharge batteries before use.

New Battery Procedure

- When you receive a new rechargeable battery, use it in the OmniScan 4 to 8 times while assuring that you completely discharge and then recharge this new battery. It will then reach maximum capacity, and achieve the maximum run time.
- It is good practice to completely discharge and then recharge the battery after 10 to 15 normal uses (or after two to three weeks) to “exercise” the battery, in order to maintain a good run time and maximize battery life.
- Frequent switches between external DC power and battery power and vice versa may result in a shorter battery life, as charge/discharge cycles are limited (about 300 cycles or so). Note that, for the battery, even a partial discharge and recharge accounts for one cycle.
- In order to maintain the life expectancy of the battery, run the OmniScan on battery power until it turns off or until you get a low-battery warning before recharging. Recharge the battery with the OmniScan (in the off position for a shorter recharge time) or with the external charger, if provided.

Used Battery Disposal

Although the lithium-ion battery contains no environmentally hazardous component, such as lead or cadmium, the battery should be disposed according to the local regulations where it is disposed. The battery should be disposed in a discharged state to avoid heat generation.

Warnings on Battery Use

Carefully read and observe the following warnings on battery use.



WARNING

- Do not open, crush, or perforate batteries; doing so could cause injury.
 - Do not incinerate batteries. Keep batteries away from fire and other sources of extreme heat. Exposing batteries to extreme heat (over 80 °C) could result in an explosion or personal injury.
 - Do not drop, hit, or otherwise abuse a battery, as doing so could expose the cell contents, which are corrosive and explosive.
 - Do not short-circuit the battery terminals. A short circuit could cause injury and severe damage to a battery, making it unusable.
 - Do not expose a battery to moisture or rain; doing so could cause an electric shock.
 - Only use the OmniScan or an external charger approved by Olympus to charge the battery.
 - Do not recharge a battery unless the indicators light up when the capacity check button on the battery is pressed. Doing so could be dangerous.
 - Do not store batteries that have less than 40 % remaining charge. Recharge batteries to between 40 % and 80 % capacity before storing them.
 - During storage, keep the battery charged to between 40 % and 80 %.
 - Do not leave the battery in the OmniScan during instrument storage.
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Printed on Rolland Hitech50,
which contains 50 % post-
consumer fiber.

DMTA049-01EN
Rev. B, March 2013

