

AVERY DENNISON® USE & CARE INSTRUCTIONS FOR LITHIUM-ION BATTERY



WARNING. Please read these instructions carefully; they include important battery safety information to reduce the risk of fire damage and personal injury.

Overview

Lithium-Ion rechargeable batteries are a reliable technology that require routine maintenance and care in their use and handling and may present a risk of fire damage and personal injury if overused, misused, abused, or damaged. Please read and follow the guidelines in this document to safely use Lithium-Ion batteries and achieve the maximum battery life span.

Physical damage, electrical abuse (such as short circuits and overcharging), and exposure to elevated temperature is hazardous and may cause the battery to overheat. Immediately stop using and discard any battery that has been damaged or has experienced electrical abuse or elevated temperatures.

The typical estimated life of a Lithium-Ion battery is about one to three years or 300 to 500 charge cycles, whichever occurs first. One charge cycle is a period of use from fully charged, to fully discharged, and fully recharged again. Use a one to three-year life expectancy for batteries that do not run through complete charge cycles. Keep a record of battery usage and remove from service batteries that exceed this life expectancy.

Rechargeable Lithium-Ion batteries have a limited life and will gradually lose their capacity to hold a charge. This loss of capacity (aging) is irreversible. As the battery loses capacity, the length of time it will power the product (run time) decreases. Lithium-Ion batteries continue to slowly discharge (self-discharge) when not in use or while in storage. Routinely check the battery's charge status by using originally paired or recommended chargers.

Due Care and Handling Precautions

- ◆ To reduce the risk of fire damage and personal injury, always follow these instructions.
- ◆ Do not disassemble, crush, or puncture a battery.
- ◆ Do not short the external contacts on a battery.
- ◆ Do not dispose of a battery in fire or water.
- ◆ Do not expose a battery to temperatures above 60 °C (140 °F).
- ◆ Avoid exposing the battery or the Avery Dennison® device in which it is installed to excessive shock, vibration, or force as this could cause internal damage.
- ◆ Do not use a damaged battery or damaged device in which the battery is installed. Damage to the Avery Dennison® device may result in battery damage, short circuits, or other battery malfunctions.
- ◆ Wear gloves to handle any battery that is leaking fluid. Dispose of a leaking battery according the Disposal and Recycling information in this document.
- ◆ In case of eye contact with battery fluid, do not rub eyes. Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the fluid remains. Seek medical attention.
- ◆ Keep the battery out of reach of children.

Battery Maintenance

Observe and note the run-time that a new fully-charged battery provides for powering your product. Use this new battery run-time as a basis to compare run-times for older batteries. The run-time of your battery will vary depending on the product's configuration and the applications you use.

- ◆ Regularly check the battery's charge status.
- ◆ Cautiously monitor batteries that are approaching the end of their estimated life.
- ◆ Consider replacing the battery with a new one if you note any of the following conditions:
 - The battery run time drops below about 80% of the original run time.
 - The battery charge time increases significantly.
 - The battery is hot while charging or in use.

If a battery is stored or otherwise unused for an extended period, be sure to follow the storage instructions in this document.

Charging

Always follow the charging instructions provided with your Avery Dennison® device and/or battery charger. Charge batteries using only Avery Dennison® battery chargers.

Storage

- ◆ Remove the battery and store it separately from the product.
- ◆ Charge or discharge the battery to approximately 50% of capacity before storage.
- ◆ Charge the battery to approximately 50% of capacity at least once every six months. If the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.
- ◆ Store the battery at temperatures between 5°C and 25°C (41 °F and 77 °F) with humidity 40~85% RH (not condensing) and avoid sunlight.



The battery self-discharges during storage. Higher temperatures (above 20 °C or 77 °F) reduce the battery storage life.

Transportation

Always check all applicable local, national, and international regulations before transporting a Lithium-Ion battery. Transporting an end-of-life or damaged battery may, in certain cases, be specifically limited or prohibited.

Disposal and Recycling

Lithium-Ion batteries are subject to disposal and recycling regulations that vary by country and region. Always check and follow your applicable regulations before disposing of any battery. Contact Rechargeable Battery Recycling Corporation (www.rbr.org) for U.S.A. and Canada, or your local battery recycling organization.

Many countries prohibit the disposal of waste electronic equipment in standard waste receptacles.

Place only discharged batteries in a battery collection container. Use electrical tape or other approved covering over the battery connection points to prevent short circuits.