



Storage Requirements for Holster Sensor Model S-XHA-AA

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1 OVERVIEW

Sensor products made by Yardarm Technologies are optimized for prolonged battery life. The energy storage for these devices is a Lithium-Ion Polymer (“Li-Po”) cell.

Li-Po batteries offer unparalleled energy density per unit volume, high reliability and are ideal for the wearable electronic product market. With a regular charge/discharge maintenance schedule, these devices offer a product life cycle that is unequalled by any rechargeable battery chemistry. However, in the case of long-term storage these devices do have restrictions on storage and handling.

To preserve warranty and maximize the useful life, a maintenance regimen must be implemented if the devices are to be stored (i.e. not deployed) for an extended period.

2 MAXIMIZING CYCLE LIFE

As the Li-Po devices age through charge/discharge cycles, their charge storage capacity diminishes. The devices used in the Yardarm Technologies sensor product line have ratings of 300+ cycles before losing 30% of their capacity. Maximizing the cycle life requires a well-controlled electronic charging circuit in a limited temperature environment. The encapsulation of the device protects it from the adverse effects of humidity.

Here are some characteristics which influence cycle life:

1. Temperature during the charge cycle
2. Maintaining a minimum charge during the life of the device
3. Bending or twisting the device

3 BATTERY CHARGING CYCLE

The electronics incorporated into the Yardarm Technologies products include charging rates and temperature monitoring to optimize the life of the cell while charging. The range of acceptable temperatures is:

Acceptable Charge Temperatures: 0°C to +45 °C

4 LONG-TERM STORAGE

Yardarm sensory products are never fully “OFF”. During manufacturing and through to shipment, the devices reside in an ultra-low-power mode. Although the devices are discharging at a slow rate, they are shipped with a nominal charge. This means that after an extended period of storage (i.e. 30+ days), the devices will need a maintenance charge.

A maintenance charge is that charge which charges the units to greater than 50% charge.

This is accomplished with approximately 2 hours of charge, every 30 days.

5 WARRANTY PRESERVATION

The electronic products offered by Yardarm Technologies will offer years of reliable sensory detection. Failure to follow these guidelines will result in the diminished battery life and invalidate the sensor warranty.