

## FIRST-USE BATTERY CHARGING

Prior to first use, place a Symbol battery in your adaptor and follow the charging protocol for your particular battery chemistry.

BATTERY TYPE	FIRST-USE CHARGING INSTRUCTIONS
<b>Nickel Cadmium (NiCd) &amp; Nickel Metal Hydride (NiMH)</b>	<ul style="list-style-type: none"> <li>Press the Condition button.</li> <li>Allow each battery to go through 3 discharge charge conditioning cycles, which are complete when the orange light changes to green.</li> <li>Each cycle may take up to 8 hours.</li> </ul> <p><b>NOTE:</b> Batteries should never be conditioned more than once a month, and done so only if the battery sees regular partial charge/discharge cycling.</p>
<b>Lithium Ion (Lilon)</b>	<ul style="list-style-type: none"> <li>There is no need to precondition the battery prior to first use.</li> <li>Simply place the battery in charger to begin its cycle.</li> </ul>

If the battery only works for a short period of time, it could have the following problems:

- **It is not fully charged.** It takes approximately 8 hours to charge a battery in a cradle, and approximately 14 hours to charge a battery in the spare battery compartment.
- **There is a memory effect due to improper charging methods.** Unlike Lilon batteries, NiCd batteries have a memory effect. For example, if you charge a brand new battery for 10 minutes, it will only hold a charge for 10 minutes. Should this occur, fully discharge and drain the battery, and leave it in the side compartment for at least 14 hours. Try this for a minimum of 3 cycles.
- **The battery is bad or has bad cell(s).** Replace the battery with a known good battery.

## HOW TO IDENTIFY A PROBLEM BATTERY

A weak battery can cause an error message to appear on your device. Before sending your product out for repair, please ensure the battery is working properly. Following are some common errors that may appear on your device:

ERROR MESSAGE	SOLUTION
<b>Device is dead</b> (Display is blank.)	Replace the battery with a known good battery.
<b>RF Drivers Failed to Load, or SLAODI Driver Error</b> (The Radio Frequency [RF] drivers failed to load into the radio card.)	A weak battery can cause the RF drivers not to load. Make sure you have a fully charged battery to troubleshoot this problem correctly.

**NOTE:** When the battery is inserted into the device, it makes contact with metal clips inside the device's bottom housing. Make sure the battery connection clips are not crushed or broken off.

## SUMMARY

A weak battery can cause product-specific error messages. Always check the battery first before sending your unit in for repair.

Reaping the full benefits from your Symbol batteries requires giving them proper care. Following our simple maintenance instructions can help you achieve optimum performance by improving device reliability and extending battery service life.

For more information, visit [www.symbol.com/services](http://www.symbol.com/services)

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## BATTERY MANAGEMENT AND MAINTENANCE



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## THE IMPORTANCE OF PROPER BATTERY CARE

Depleted batteries are a common cause of product failure at customer sites. Many times, what appears to be a malfunctioning product may just be poor performance caused by a weak or worn battery.

Without checking the battery's condition, customers repeatedly send their product in for repair. This can cause:

- Lost productivity.
- Decreased satisfaction.
- Duplicate repair rates with concurrent higher repair costs.

Batteries are a consumable item, and their age and condition will impact the operation of the products they power. To help increase user satisfaction and improve performance, Symbol Services recommends that you implement our simple battery management process throughout your organization.

## EIGHT STEPS TO BETTER BATTERY PERFORMANCE

Symbol Services has identified best practices for managing and maintaining optimal battery usage. When implemented, this effective plan will help improve your productivity and satisfaction.

- 1. Locate the battery's date of manufacture**, which is shown as a four-digit code on the face of the battery. The first two digits represent the year of manufacture and the second two digits represent the week of manufacture (*please refer to the illustration below*).



- 2. Discontinue using outdated batteries.** Older batteries may not hold a charge as well as newer ones. Using an outdated battery may also lead to erratic operation, a shorter lifespan and impaired product performance. Discontinue usage when:
  - a. A battery is more than two years old.
  - b. Capacity drops below 80%.
  - c. Utilized for 18 months in a typical retail application.
  - d. Used for 12 months in a 2-3 shift industrial/warehouse application.
- 3. Remove all non-Symbol batteries.** Symbol batteries are designed to specifically work with all features of your Symbol device and hence will maximize its performance.
- 4. Change the battery when the indicator light reads "low."** If you use the device until the battery has completely drained, it may lock up and appear to be "dead." Many times, locked units can be reset without being sent out for repair. If this occurs, let the unit charge overnight. The next morning, install a fully charged battery in its place.

- 5. Maintain 2-3 spare batteries per unit.** Keeping extra batteries on hand allows you to fully charge the others off shift. This helps increase reliability and minimize downtime. Following are recommendations for the minimum number of batteries you should have available:

INDUSTRY	ENVIRONMENT	NUMBER OF BATTERIES
Retail	1- to 2-shift operations	2+ batteries
Industrial/Warehouse	24 x 7 applications	3+ batteries

- 6. Assign a specific terminal to each user.** Locating charging stations throughout the floor is a common practice. As their batteries die, users pick up a battery from any station – even though it may have only been placed there 15 minutes prior. Having a single person in charge of a central location helps reduce device failure and damage.
- 7. Tie the batteries to the unit.** The following process helps ensure that each battery is "married" to a specific device and a battery charger:
  - a. Label each device with its own unique number.
  - b. Ensure each battery charger and adaptor slot has its own unique label.
  - c. Upon receipt of Symbol batteries, mark each one with the date received.
  - d. Next, assign each battery to a specific device and label each battery accordingly.
  - e. Finally, assign each battery to a specific adaptor in a specific charger, and appropriately label each battery.
- 8. Keep your battery contact surfaces clean.** Dirty contact points are a main source of charging problems. To clear dirt and residue, gently clean the contacts with a soft cloth.