



## HANDHELD BEST PRACTICES

Motorola has identified “best practices” that when put in place, improve product, customer productivity, and customer satisfaction of Motorola handheld products

### BATTERY MAINTENANCE

Batteries are a consumable item – and an effective battery maintenance plan will eliminate what at first appear to be product problems.

- **Identify and remove from use all batteries more than 1 year old. Why?**  
Older batteries simply will not hold a charge as well as newer batteries, leading to a shorter operational life and erratic operation, and cause the product not to perform as intended. During Motorola customer visits, examples were found where the batteries (4-5 years old!) were being changed up to 6 times within a shift – almost every hour – in an attempt to get a good working battery. After trying several times with different batteries, an assumption is made that the terminal is no good – and sent in for repair.

In addition to removing old batteries, review and remove all non-Motorola batteries. Tests have shown that these batteries do not hold a charge as well as Motorola batteries, leading to the same failure symptoms.

As a guideline, if a battery is used in a multi-shift environment (across three full shifts), one year of use is the outer limit you can expect.

If the customer has a technical resource person, they should completely review the battery program currently in place for the customers’ environment, making sure that the batteries are being charged completely and properly: **6 to 8 hours.**

- **Change the battery when the indicator light shows “Low”**  
Simply changing to a charged battery at the time the light indicates a low battery will eliminate another common symptom: **Terminal locking.** When the terminal is used until the battery is completely dead, the unit will lock up and appear to be “dead” – and is then sent in for a repair that may not be necessary.

**Quick Fix:** If the terminal locks because of the battery, let the unit sit overnight. The next morning, use a fully charged battery for the unit. Most of the time, the terminal will come back to life – without being sent out for repair.

- **Guide to Maintaining Nickel-Cadmium and Lithium Ion Batteries**  
For more detailed information, this Motorola (Symbol) document is also available at: [http://www.dcrs.com/pics/db/document\\_library/000144.pdf](http://www.dcrs.com/pics/db/document_library/000144.pdf)

### UNIT HANDLING

- **Assign a specific terminal for each person to use for better uptime and performance.**  
The companies that have had the best success with the product have assigned a specific unit for each person to use. They are responsible for protecting that unit from damage – and the success is reflected in the lower return rate.

In addition, having a single person in charge of a central location for check in/check out at each site further lowers failure. As each unit is dispensed, it is verified to be working – and again when it is returned at the end of the shift.

Tying batteries to the unit also increase reliability. With two batteries per unit, one can be fully charged off shift – and then ready to go. Compare this to a common practice locating charging stations throughout the floor. As a battery dies, users may pick up a battery from a station – which may have only been placed there 15 minutes ago. Customers have simplified the process further by marking the batteries with indelible ink with the unit number to clearly tie them together.

- **Handle units with external antenna with care.**

The external antenna was not designed to be used has a handle. Train your users not to handle the unit by the antenna and to take care not to bump the antenna. On removal or reinstallation, only hold the antenna at the base (widest part).

- **Take time to train in good handling techniques.**

Many Motorola products are used in locations with tremendous turnover and the users may not have been shown the correct way to handle the equipment. Consider implementing a monthly review that emphasizes best practices, covering:

- Where to set units down (avoid locations where movement can knock them off)
- Avoid dropping
- Holsters are encouraged when they're available
- Use rubber boots when available to prevent side shock
- Proper scan angle
- Appropriate antennae handling
- Battery care

Putting these tips into practice at your location will help improve uptime and performance, and appreciate the value of DCRS Solutions!

**Contact DCRS for all of your Motorola Handheld supplies,  
including Paper, Batteries, Mag Card Readers, etc.**



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