Power Management Tip

When the main battery is removed without powering down the device, the LCD will dim but the unit will continue to run on the backup battery. If a main battery is not re-installed within approximately 10 minutes, the backup battery will deplete and the unit will shut down. When a main battery is reinstalled, the backup battery will begin to charge and will cause the main battery to deplete at a faster rate than if the backup battery were fully charged. To avoid this, and to ensure a "clean" shutdown of the device, always power down before removing the main battery for extended periods of time. To power down the Scepter, press and hold the red power button, then tap the "Power Off" button on the display. This will ensure a clean and complete power-down of the device.

Battery Care

Adequate battery life is crucial to the performance of mobile computing devices. Here are some tips for prolonging the life of your Scepter batteries:

- Charging your batteries at room temperature is recommended. Charging at lower temperatures will require a longer charge time and charging below freezing can permanently damage battery cells, making them more sensitive to failure when exposed to vibration and other stresses. Charging at elevated temperatures (above 40°C / 104°F) is also not recommended as it can create a possible thermal runaway condition that can also permanently damage a battery cell.

- Avoid discharging the batteries completely. The shorter the discharge, the longer the battery lasts. There is no issue with "memory" and the battery does not need periodic full discharge cycles to prolong life. A partial discharge with a Li-ion is perfectly fine.

- Avoid storing batteries with a full charge. If you purchase batteries to be used as replacements in the future, avoid the urge to fully charge them and then set them on the shelf. Instead, place them in a cool, dry place and then wait to charge them fully when you're ready to use them. Ideally, Li-ion batteries should be charged at 40 percent for long-term storage. The worst possible scenario is a fully-charged battery stored at an elevated temperature.

- Date-stamp your batteries when you receive them. If you use the "500-cycle rule" – meaning that your battery should last about 500 charges – you can calculate about how long your batteries are expected to work at 80 to 100% of full capacity. It's important to note that Lithium Ion batteries do just simply age, regardless of charge cycles. If a battery is five years old, even if it's only used once a month, it will still not perform at full capacity.

Battery Test Results

AML periodically tests the battery life of our products using real-life scenarios to produce empirical data. The information below was gathered from tests performed on our Scepter Mobile Computer in various configurations. Note that this information is in no way a warranty or guarantee of performance for all applications. It is simply to provide a point of reference for battery performance under a known set of criteria.

Test Criteria:

- Each Scepter was loaded with an application that simulated a "trigger pull" or "scan press" every ten (10) seconds.
- On each "trigger event", the scan engine was activated to scan a barcode and the radio was activated to ping a server.
- The LCD remained on at all times.

Model No.	Scan Engine	Battery Life	Trigger Events
M7800-1100	Standard Laser	8 hours, 19 minutes	2,994
M7800-1500	Near/Far Laser	8 hours, 14 minutes	2,964
M7800-1600	Standard Imager	7 hours, 36 minutes	2,736
M7800-1700	Near/Far Imager	8 hours, 17 minutes	2,982