# Frequently asked questions about QuickSort<sup>TM</sup>

Date: 5 May 2006 By: Isidor Buchmann

For: Training purposes of QuickSort<sup>TM</sup>

Potential buyers will ask the following questions:

# 1. What batteries does QuickSort<sup>TM</sup> test?

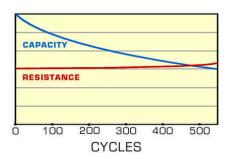
QuickSort<sup>TM</sup> accommodates single-cell lithium-ion batteries with a capacity of 500-1500mAh. Most cell phone and TETRA radio packs fall into this group. Please note that QuickSort<sup>TM</sup> does not service nickel and lead based-batteries. When testing batteries outside the designated test range, ple ase contact Cadex Service for assistance (service@cadex.com).

#### 2. Does QuickSort<sup>TM</sup> need a matrix?

No designated matrix will be needed. The C7000 C-Series platform contains a generic matrix that services all batteries within the testing range.

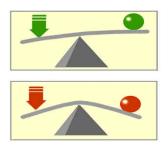
#### 3. Is QuickSort<sup>TM</sup> based on resistance?

No. Resistance readings are unreliable because some battery systems lose capacity but retain good internal resistance with usage and age [manganese-based]. QuickSort<sup>TM</sup> excludes the internal resistance reading in the inference calculation and only uses the value at the conclusion of the test.



### 4. On what concept does QuickSort<sup>TM</sup> work?

QuickSort<sup>TM</sup> is based on the *electrochemical dynamic response* of the battery. Like a mechanical arm, a good battery is solid and produces little lag. A weak battery, on the other hand, appears soft and bends and becomes sluggish to the applied force. QuickSort<sup>TM</sup> looks at the "firmness" of the battery.



### 5. Is QuickSort<sup>TM</sup> patented?

Yes, a patent is being issued on the inference technology, the process that calculates the data and enables the classification of *Good*, *Low* and *Poor*.

# 6. How does QuickSort<sup>TM</sup> differ from QuickTest<sup>TM</sup>?

QuickSort<sup>TM</sup> is a classification tool designed to sort batteries to usable, suspect and unusable. QuickTest<sup>TM</sup>, on the other hand, is an estimation device that provides state-of-health reading on a sliding scale.

#### 7. What will happen to OuickTest<sup>TM</sup>?

QuickTest<sup>TM</sup> will continue to be used for specialty batteries for which a matrix can be developed.

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