

# The Doc's Battery Test Report

Battery Details	
Brand	Powertech 1650
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	1650
Stated Voltage	1.5 volts 1.2 volts
Number of batteries	Single Set of 2 Set of 4
Battery Set used	Set 1
Times charged before test started	14
Charger used to charge	Rezap RBC883 Vanson Speedy Box UBA4
Time Batteries charged in charger	See UBA graph.

Test Procedures	
Spreadsheet name	Digitor1700NiMH-AA-Set1.123 (Discharge data file)
UBA file name	Digitor1700NiMH-AA-Set1-10.uba (Charge file)
Select Resistance 5 or 10 ohms	5 ohms 10 ohms
Voltage cut off	3.5 volts 3.6 volts
Date of test	01/12/03

Summary of test	
Voltage	Starting voltage 5.8 volts, cut off voltage 3.6 volts
Test duration	7,178 seconds or 119.63 minutes
Max Battery Temp	30.9 degrees Celsius
Min Battery Temp	26.9 degrees Celsius

## Methodology

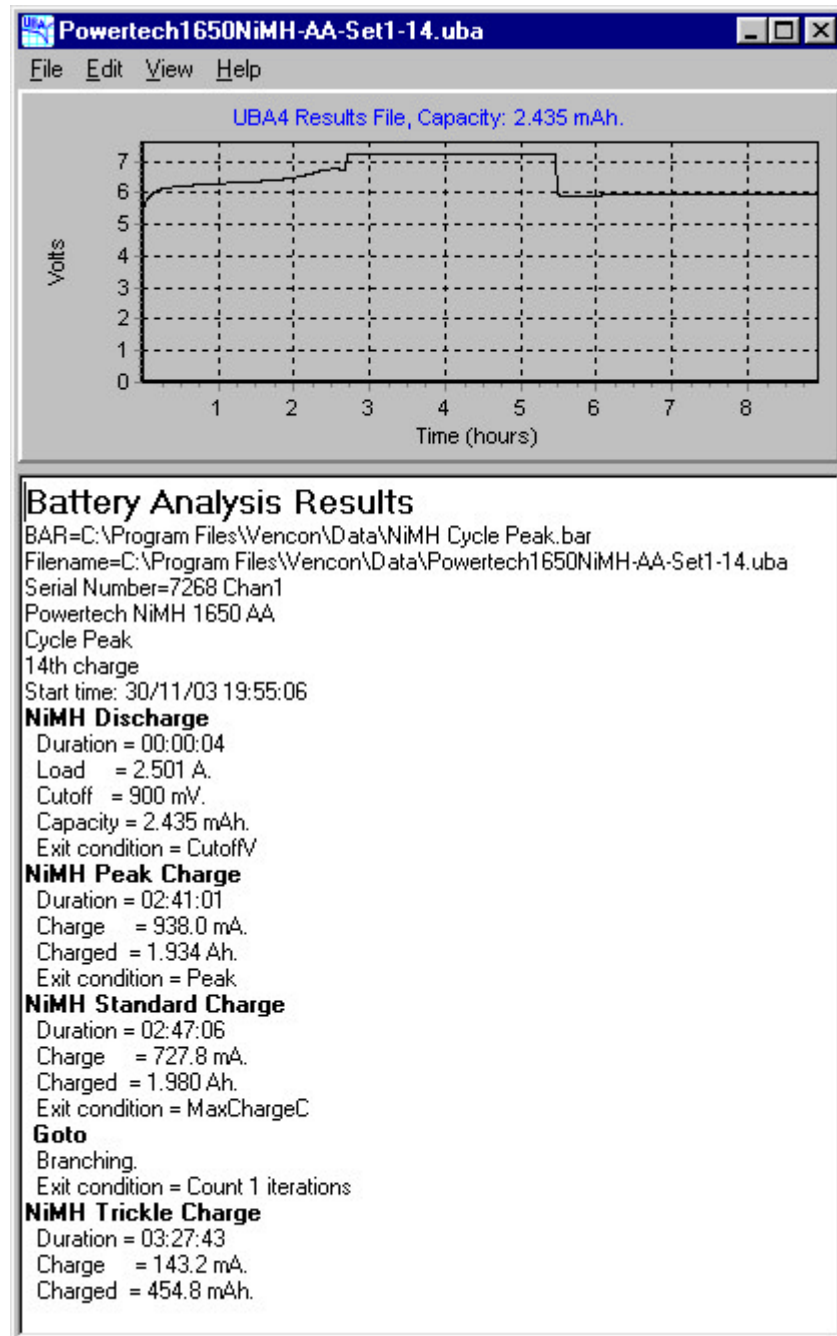
The battery set being tested has been charged at least 5 times. The charge actually used in the test is noted above. The battery set is charged in a Universal Battery Charger (UBA4). It is then tested under a load of 5 ohms, in the scientific dooverlackie. The following pages give various data, including:

1. charging information from the UBA4;
2. a graph of the voltage during the test (cut off voltage being 3.6 volts);
3. a graph of the battery temperature during the test; and
4. a graph of the battery temperature verse ambient air temperature during the test.

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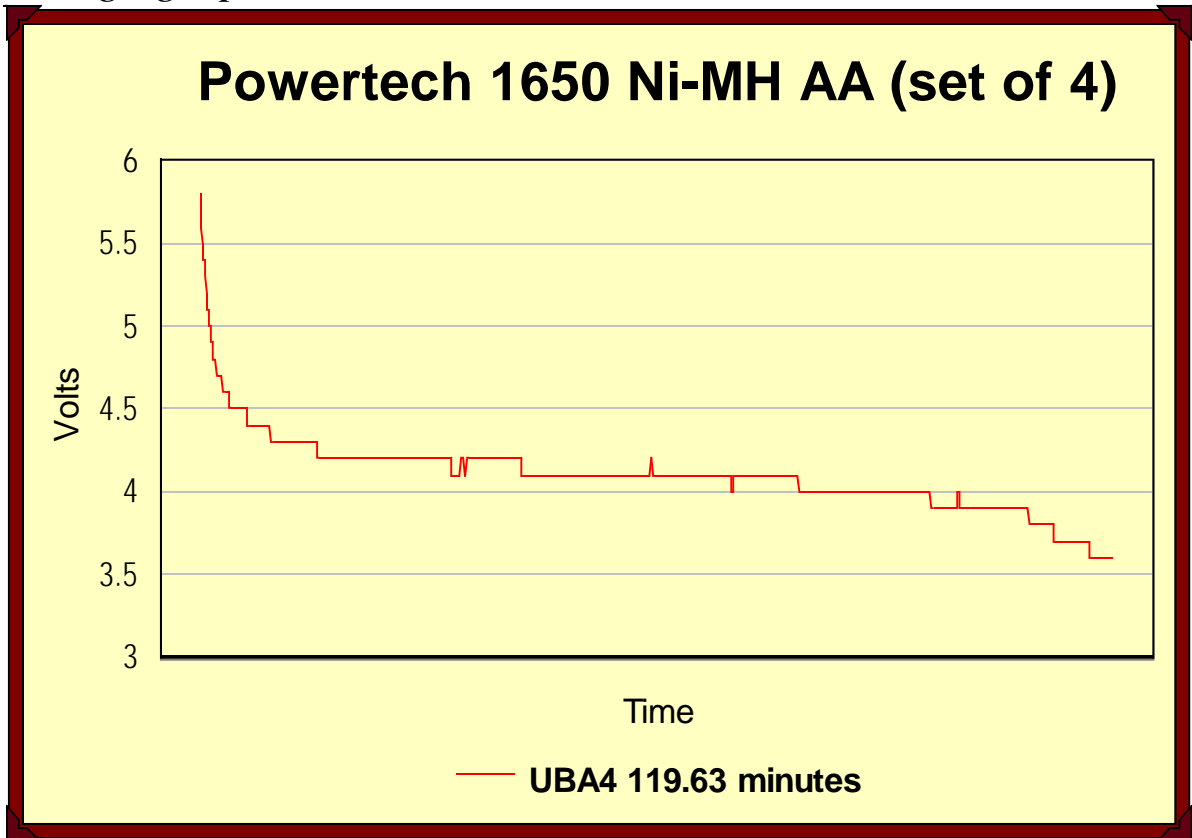
## UBA report

The graph and charging information from the UBA4.

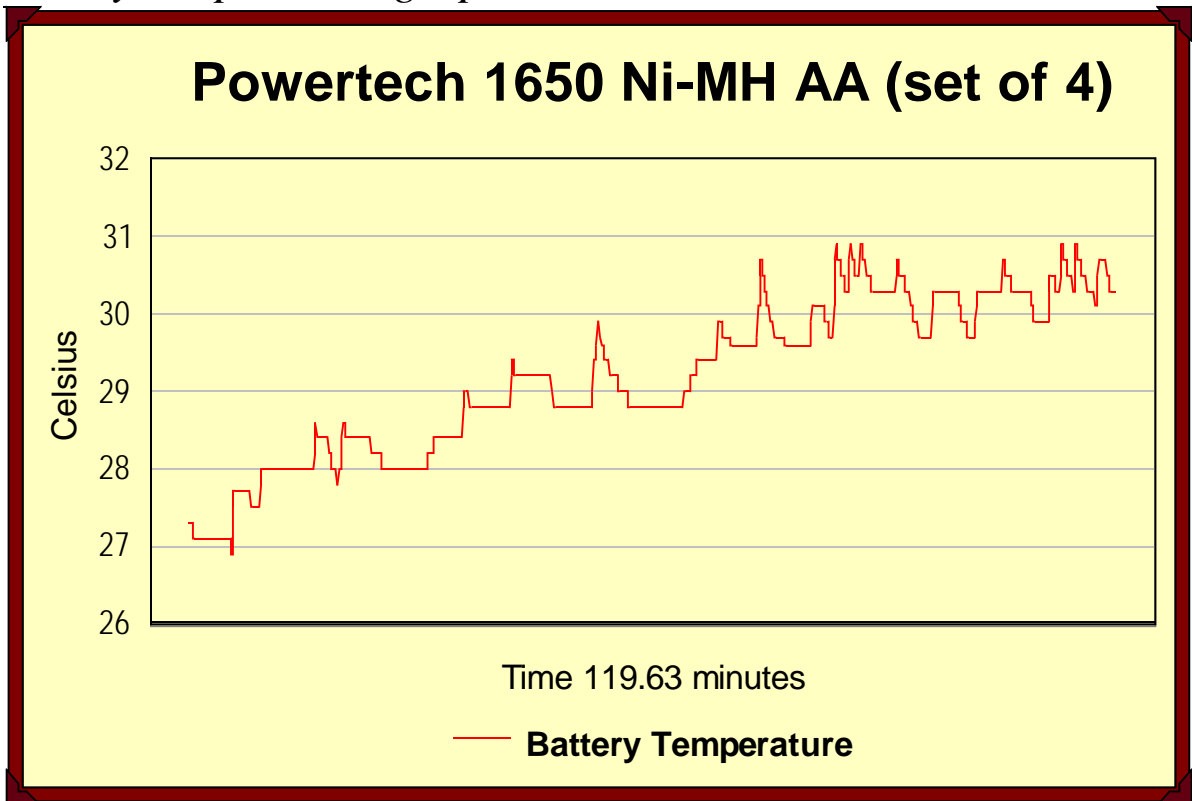


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*Voltage graph*

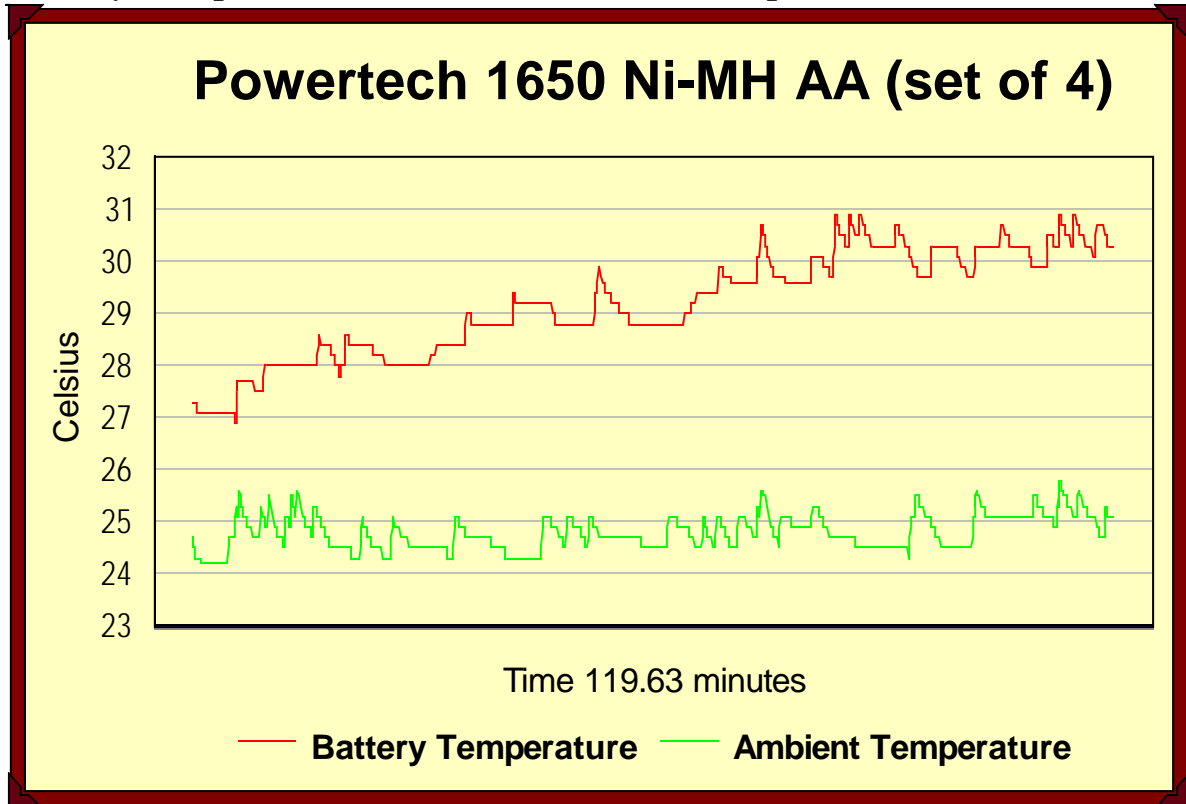


*Battery temperature graph*



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*Battery temperature -v- Ambient air temperature*



## *Conclusion*

The Powertech 1650 does not shine in any particular way, either in terms of performance, durability or build quality. The rating of 1650 mAh is close to the stated performance (no exaggeration here either). It is hard to be excited or critical of the Powertech 1650, but The Doc believes better options are available for around the same price. The Doc does have data for different chargers and may add this later, depending on priorities.

<b>Run Time (5 ohm)</b>	<b>119.63 minutes</b>
<b>Battery build quality</b>	<b>Good</b>
<b>Place of Origin</b>	<b>China</b>
<b>Cost (set of 4)</b>	<b>AUD\$16.00</b>

*Report date: 31 December 2003*

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