

# The Doc's Battery Test Report

## Battery Details

Brand	Digitor 1700
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	1700
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	10
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	23/11/03

## Summary of test

Voltage	Starting voltage 5.8 volts, cut off voltage 3.6 volts
Test duration	7,176 seconds or 119.60 minutes
Max Battery Temp	30.7 degrees Celsius
Min Battery Temp	24.6 degrees Celsius

## Methodology

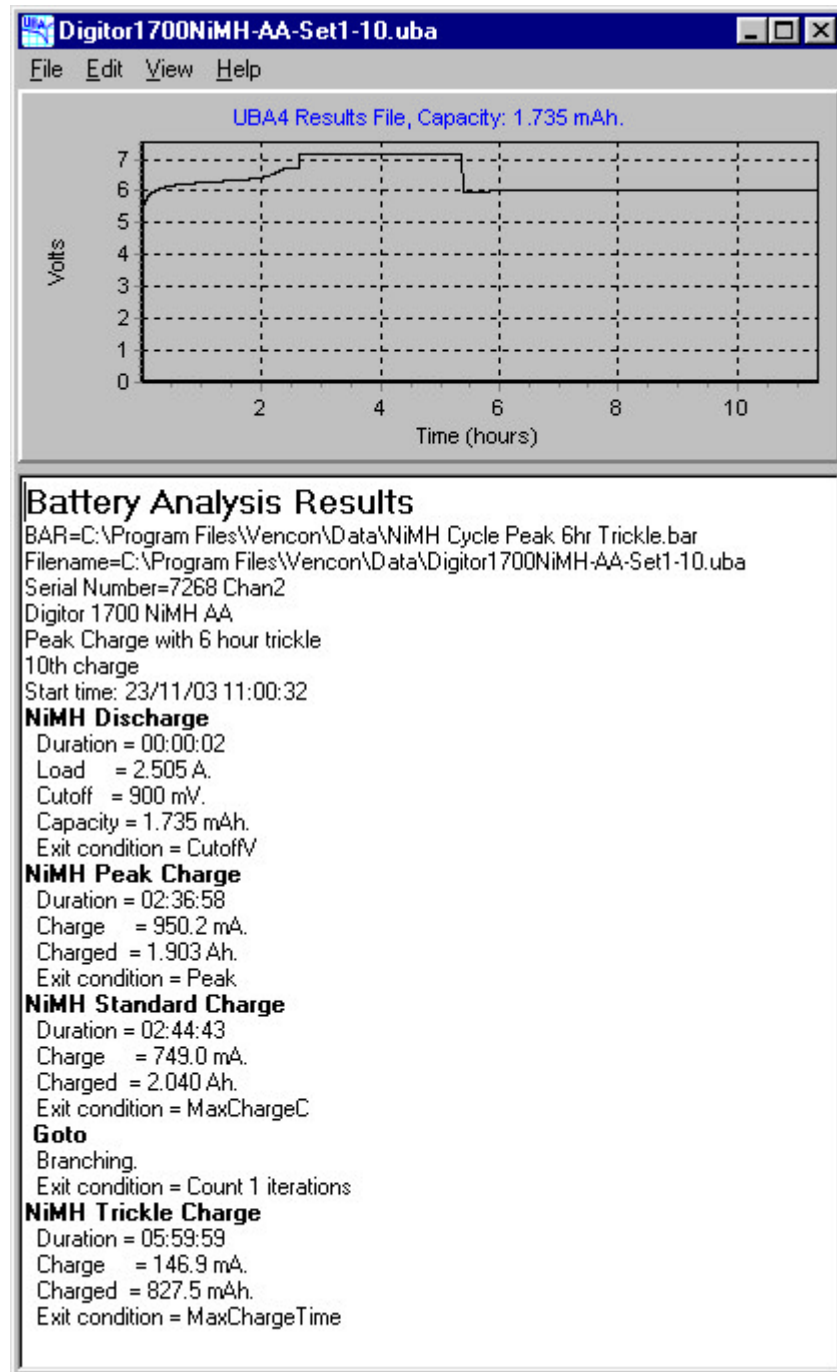
The battery set being tested has been charged at least 5 times. The charge actually used in the test is noted above. The battery set is charged in a Universal Battery Charger (UBA4). It is then tested under a load of 5 ohms, in the scientific dooverlackie. The following pages give various data, including:

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;
4. a graph of the battery temperature verse ambient air temperature during the test; and
5. a graph comparing battery temperatures during testing between the Sanyo 1850, Sanyo 2100 and the Digitor 1700.

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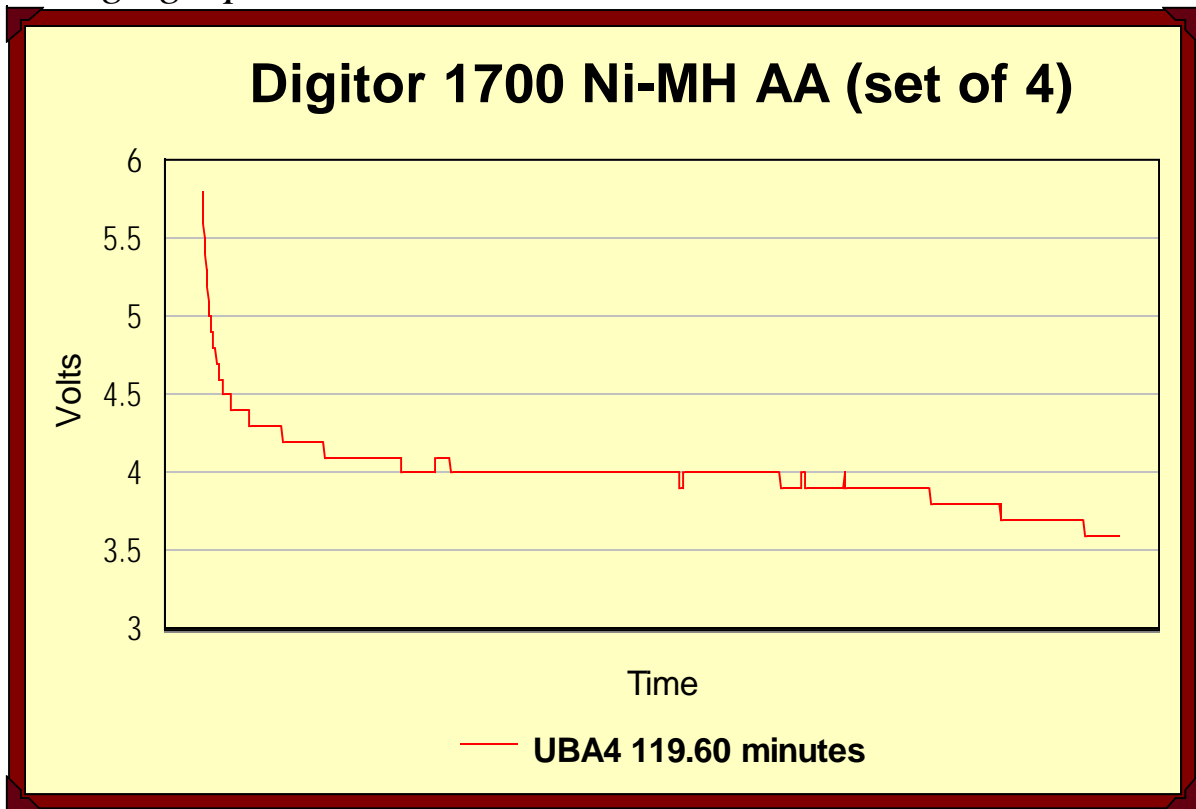
## UBA report

The graph and charging information from the UBA4.

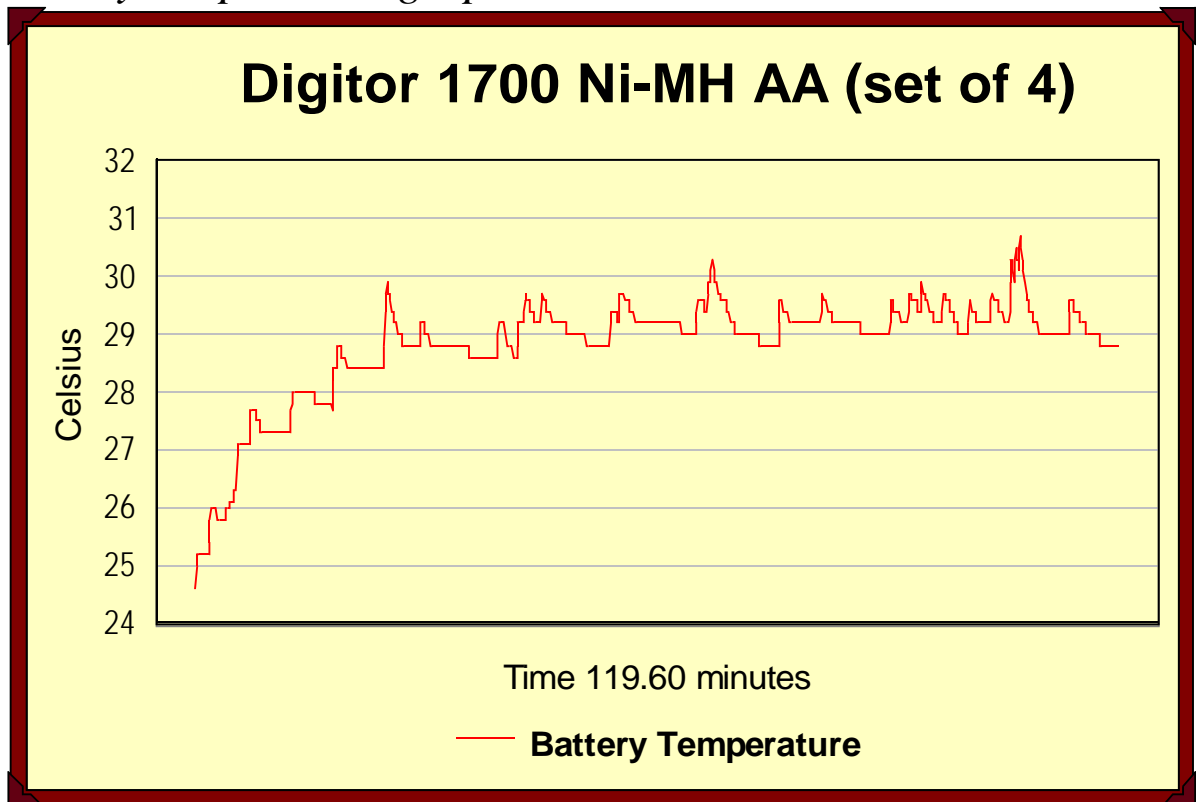


# The Doc's Battery Test Report

*Voltage graph*



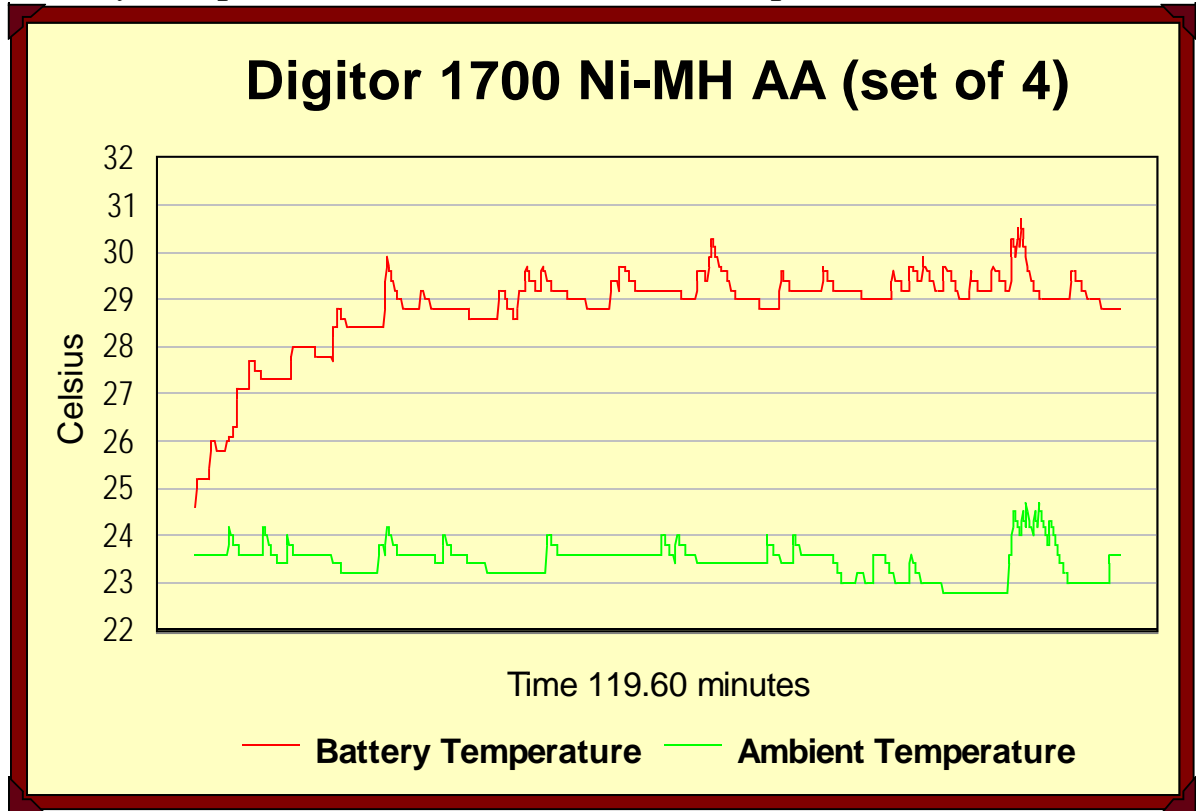
*Battery temperature graph*



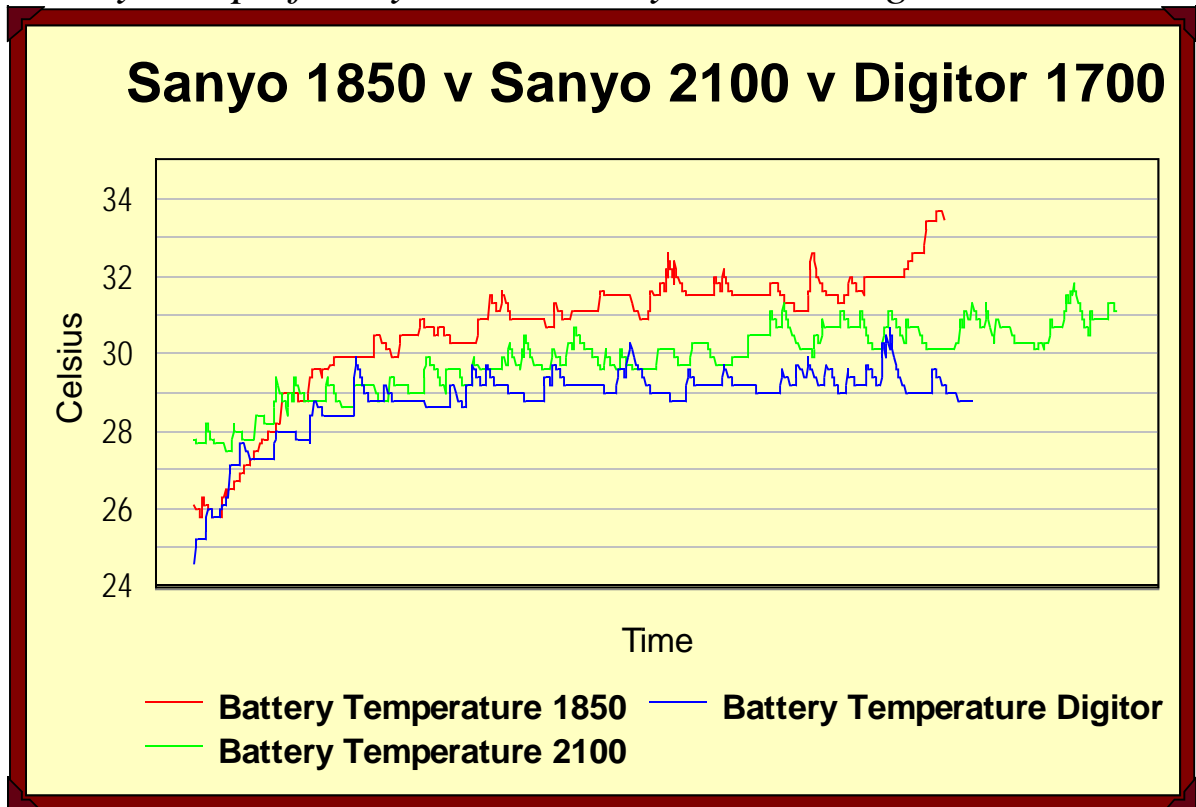
Note the battery temperature initially rises as the battery discharges more energy but then flattens out, unlike most other brands.

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*Battery temperature -v- Ambient air temperature*



*Battery Temp of Sanyo1850 v Sanyo2100 v Digitor1700*



While not directly comparable due to modest differences in ambient air temperature, the above graph gives some idea of the variation in battery operating temperatures between different batteries.

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## *Conclusion*

The Digitor 1700 are one of the better quality batteries made in China. They are a good performer, but are expensive for what you get. The rating of 1700 mAh is close to the stated performance (no exaggeration here). They are a good all round battery, and if they reduced the price by about \$4 per set of 4 they would be a good buy. But for the current price you can get Sanyo quality and durability. The Doc does have data for different chargers and may add this later, depending on priorities.

<b>Run Time (5 ohm)</b>	<b>119.60 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\$20.00</b>

*Report date: 30 December 2003*

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