CERTIFICATE OF CONFORMITY

ISSUED BY YOUNG CALIBRATION LIMITED

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Young Calibration Limited

Unit 4 Ham Business Centre
Brighton Road
Shoreham-by-Sea
West Sussex BN43 6RE

Telephone 01273 455572
Facsimile 01273 454120

www.youngcalibration.co.uk - enquiries@youngcalibration.co.uk

Approved Signatory

A. Young - N. Mardon
M. Hindle

We **Young Calibration Limited**, address as above, declare our responsibility that the tests undertaken on the

Sonatest Falcon - Li-ION Battery Packs

were completed in accordance with the requirements of the United Nations ST/SG/AC.10/11Rev.5

Battery Pre-Conditioning:

Notes : The batteries were supplied at half their rated charge. Eight batteries had been cycled once and eight cycled 50 times. Four batteries of the 1 x cycle and four of the 50 x cycle were discharged and the remaining batteries were fully charged, the following procedure was applied.

Procedure : **Dis-charge Procedure:** 4.3 A constant current to 12 V

Charge Procedure: 3.6 A constant current to 16.8 V

38.3.4.1 Test 1: Altitude simulation.

Procedure : The battery packs were stored at a maximum of 11.6 kPa abs or less for at least 6 hours at an ambient temperature of 20 ± 5 °C.

Requirement : No mass loss, leakage, venting, disassembly, rupture, no fire and voltage above 90% - Test passed.

38.3.4.2 Test 2: Thermal test.

The battery packs were stored at 75 ± 2 °C for a minimum of 6 hours then stored at -40 ± 2 °C for a minimum of 6 hours, the interval between temperature extremes was less then 30 minutes, this cycle was repeated 10 times. The batteries were then stored for a further 24 hours at 20 ± 5 °C.

Compliance : No mass loss, leakage, venting, disassembly, rupture, fire and voltage above 90% - Test passed.

38.3.4.3 Test 3: Vibration

Procedure : The battery packs were subjected to a sinusoidal waveform with a logarithmic sweep from 7 Hz to 18 Hz at a peak acceleration of $1g_n$, the amplitude was then maintained at 0.8 mm and the frequency increased until a peak acceleration of $8g_n$ was reached, finally the peak acceleration of $8g_n$ was maintained until the frequency of 200 Hz was reached. This profile was traversed bi-directionally over a time period of 15 minutes and repeated a total of 12 times and repeated in 3 mutually perpendicular mounting positions.

Compliance : No mass loss, leakage, venting, disassembly, rupture, fire and voltage above 90% - Test passed.

38.3.4.4 Test 4: Shock

Procedure : The battery packs were subjected to 3 half sine shocks in both the positive and negative directions of each of 3 mutually perpendicular mounting positions, of peak acceleration of 150g_n and a pulse duration of 6 milliseconds.

Compliance : No mass loss, leakage, venting, disassembly, rupture, fire and voltage above 90% - Test passed.

38.3.4.5 Test 5: External short circuit

Procedure : The battery packs were temperature stabilized at 55 ± 2 °C then subjected to an external short circuit of a resistance of less then 0.1 ohm, this condition was maintained for a minimum of 1 hour following the batteries external temperature returning to 55 ± 2 °C. The batteries were then observed for a further six hours.

Compliance : External temperature below 170°C, no disassembly, rupture and no fire within 6 hours of test - Test passed.

38.3.4.5 Test 7: Overcharge

Procedure : The batteries packs were subjected to an overcharge condition of 22 volts and 7.2 amps for a period of 24 hours at ambient temperature.

Compliance : No disassembly and no fire within 7 days of test - Test passed.

Iss. 4 Correction of page numbering and discharge voltage.

Customer	: Gleichmann & Co. Electronics GmbH : - Wareneingang - : SchraderstraBe 44 : D-67227 Frankenthal
Customer's Reference No.	: 4700012812
Test Procedure	: United Nations ST/SG/AC.10/11/Rev.5
Reference Equipment	: YC/010/004, YC/010/020, YC/010/086, YC/010/096, YC/010/112, YC/010/113, YC/010/114, YC/010/135 & YC/010/163
Testing Performed By	: N. Mardon, J. Redman
Tests Performed	: 31st January - 01st March 2011
Test Compliance	: The battery packs passed the specified criteria of the above listed tests according to the United Nations ST/SG/AC.10/11/Rev.5