



HEDBOX
PRODUCT RELIABILITY TESTING
of the NERO S and NERO L
Report No. 112-19-0033A
Proposal No. 54338 Rev. B

Customer Information

Hedbox
Zoran Komlenski
6239 Dean Martin Drive, Suite-A
Las Vegas, NV 89118

Laboratory Information

Test engineers: Andrew Eskildsen and Paul May; *Westpak, Inc.*
Test date: January 10, 2019
Westpak, Inc. laboratory: San Jose, California

Westpak, Inc. is accredited to ISO 17025 *General Competence for Testing and Calibration Laboratories*. Please visit <http://www.westpak.com/page/quality/quality-certificates> for Westpak, Inc.'s ISO 17025 Scope of Accreditation.





Purpose of Testing

The purpose of this test was to determine what effect various environmental hazards encountered in the in-use environment would have on the mechanical performance of the Equipment Under Test (EUT): NERO S and NERO L. Four (4) units were subjected to the following test input:

Test Input	Standard Referenced	Inspections
Freefall Drop	Client Specified	External Only

Acceptance criteria for the EUT are determined by **Hedbox**.

Product Information

Product: NERO S and NERO L



NERO S



NERO L

Unit Quantity	External Dimensions										Weight	
	in (l x w x h)					cm (l x w x h)					lb	kg
2 – NERO S	3.7	x	1.5	x	5.9	9	x	4	x	15	1.2	0.5
2 – NERO L	3.7	x	2.2	x	5.9	9	x	6	x	15	2.1	1.0

Test Equipment and Instrumentation

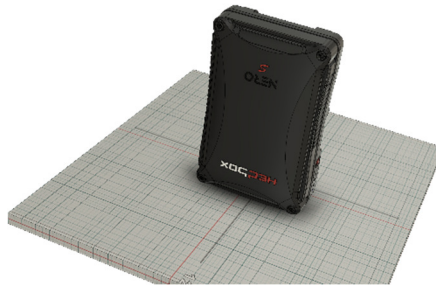
Testing performed in the laboratory was conducted at ambient conditions.

Please refer to Appendix I for equipment and instrumentation information and calibration dates.

Product Orientation Identification



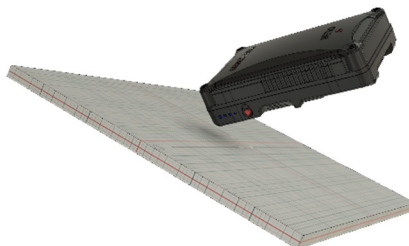
Face Down



Top Down



Left Down



Top-Back Corner



Test Descriptions

Freefall Drop

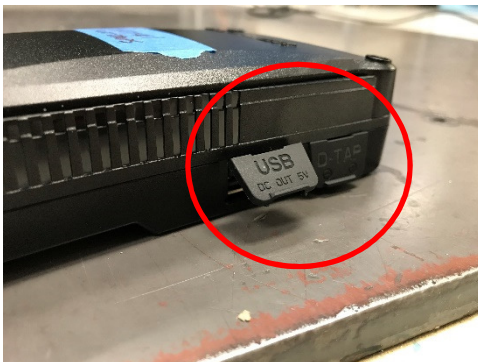
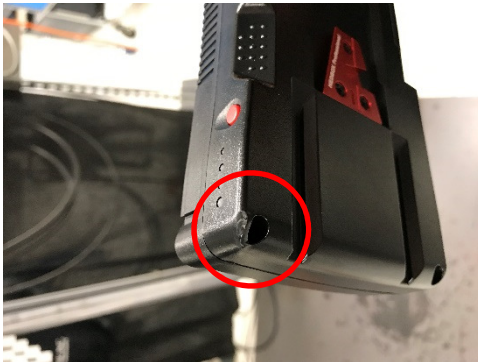
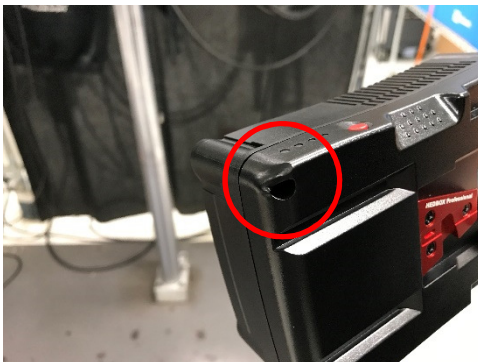
Number of samples: 4
EUT status: Non-Operational
Impact surface: Steel

Drop Number	Unit	Orientation	Drop Height	
			in	cm
1	NERO S Unit #1	Face Down	70	178
2		Top Down		
3		Left Down		
4	NERO S Unit #2	Top-Back Corner		
5	NERO L Unit #1	Face Down		
6		Top Down		
7		Left Down		
8	NERO L Unit #2	Top-Back Corner		



Note: A video was recorded for each impact and provided to Hedbox.

Results and Observations

Test Input	Observations	Appendix
Freefall Drop	<p>No unusual physical damage was observed to the exterior of the units following this test input.</p> <p>Port covers popped open during drops, loose particles were heard on the interior of the enclosure, and minor dents observed to the corner of the units following corner impacts.</p> <p>Please refer to the photos below for these observations.</p>   <p>NERO L</p>  <p>NERO S</p>	n/a



Conclusions

Four (4) NERO S and NERO L units were subjected to freefall drop testing as specified by **Hedbox**.

No unusual external physical damage was observed to the units throughout the test input. Port covers popped open during drops, loose particles were heard on the interior of the enclosure, and minor dents observed to the corner of the units following corner impacts.

Upon test completion, the units were returned to **Hedbox** for further evaluation. The results of any such evaluations are unavailable to Westpak, Inc. at this time.

There were no anomalies throughout the conduct of this test that would detract from the ability of **Hedbox** from making reasonable judgments concerning the testing as described herein.

Westpak, Inc. is pleased to present this report to **Hedbox** covering the product reliability testing of the NERO S and NERO L. The test results apply to the samples described in this report. The equipment used to conduct this testing has been recently calibrated and is known to be in good operating condition. In addition the test operator uses good laboratory practice at all times. Therefore, the data is considered accurate and reliable. However, there is no warranty expressed or implied with the submission of this report, and **Hedbox** assumes all liability for use of the data contained herein.

Respectfully submitted,
Westpak, Inc.



Andrew Eskildsen
Lab Manager
January 16, 2019

Reviewed By



Steven Fischback
Production Manager
January 16, 2019

APPENDIX I

EQUIPMENT AND INSTRUMENTATION

Instrumentation & Equipment	Westpak, Inc. No.	Model No.	Last Calibration Date
Ohaus Shipping Scale	936	SD75L	10/4/2018
DD2 Lansmont Drop Test Machine	365	PDT 56ED	Not Required
Swanson 48" Calibrated Ruler	1122	AE142	9/17/2018
Swanson 48" Calibrated Ruler	1123	AE142	9/17/2018
Notes: All calibration conducted annually on instrumentation only.			