



ENVIRONMENTAL & MECHANICAL

LABORATORY

TEST REPORT

LV 500

For

POINTER TELOCATION LTD.

13/06/2019

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DOCUMENT CONTROL




DOCUMENT HISTORY

The following table records information regarding released editions of this document and briefly describes their file location, purpose, and changes made to them.

Edition ID	Release Date	Responsible Author	File Reference, Purpose and Description of Changes
01	13/06/2019	Dina Klebansky	File Reference: Z:\Reports\TR\Proj2019\Pointer LV 500 2019-06-03 (Steam Jet).doc Purpose: Changes:

DOCUMENT APPROVALS

This edition has been approved by:

	Name	Title	Signature	Date
Compiled	Dina Klebansky	Technical Writer		13/06/2019
Tested	Zion Asslizada	Test Engineer		13/06/2019
Approved	Carlos Guerrero	Environmental, HALT and HASS Labs Manager		13/06/2019

OPEN ISSUES

This part of the document control section is used to record and track open issues and/or unresolved questions. As the development of this document proceeds, these issues and questions should be resolved and then removed from the list.

No.	Subject/Section	Description
1.		
2.		

EXECUTIVE SUMMARY

The following table summarizes the tests that have been performed in QualiTech - Environmental & Mechanical Laboratory.

POINTER TELOCATION LTD. had performed the functional tests and the tests results are his sole responsibility.

The stated results apply only to the specific UUT that were currently tested.

No.	Test Name	Pass/Fail	Job Number	Notes
1.	Steam Jet Test	Pass	19/12193	

Statement of Compliance with test requirements:

QualiTech - Environmental & Mechanical Lab. declare that the UUT LV 500 was tested to comply with the requirements of the applicable environmental test specification.

Customer granted the permission to reproduce and distribute this report only in the full format with no change and no addition.

A2LA symbol in the front page is applicable only to the tests under the scope of QualiTech accreditations.

QualiTech has A2LA accreditation to ISO/IEC 17025:2005 for Certificate and test types as listed see the following link:

<https://www.a2la.org/scopepdf/1633-02.pdf>

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1. INTRODUCTION

1.1. PURPOSE

The purpose of this report is to outline the test results of the LV 500, which was tested according to the applicable documents (see section 1.3), in QualiTech Environmental & Mechanical Lab.

1.2. GLOSSARY

1	ETR	Environmental Test Report
2	ETS	European Telecommunication Standard
3	IEC	International Electronic Community
4	N/A	Not Applicable
5	NCR	No Calibration Required
6	RH	Relative Humidity
7	TBD	To Be Defined
8	UUT	Unit Under Test

1.3. APPLICABLE DOCUMENTS

This section contains a list of resources referenced by or related to this document.

- DIN 40050-9, IPX9K

2. STEAM JET TEST- 19/12193

2.1. UNIT UNDER TEST OVERVIEW

Test Date	03/06/2019
Customer Representative	Itamar Gohary
Customer Name	POINTER TELOCATION LTD.
Unit Name	LV 500
Item Manufacturer	POINTER TELOCATION LTD.
Part Number	925-00000602
Serial Number	2346596, 2346602, 2338676
Item Quantity	3 units

2.2. TECHNICAL SOURCE

- DIN 40050-9, IPX9K

2.3. TEST INSTRUMENTATION

No.	Instrumentation Name	Due Cal.
1.	Steam Nozzle 1.6 mm. ø	NCR.

2.4. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

2.5. TEST PROCEDURE

2.5.1. EXCLUSIONS FROM THE TEST METHOD

None.

2.5.2. TEST PROCEDURE DESCRIPTION

Volume of Water	14-16 L/min.
Pressure	About 8 atm.
Distance from Target	100-150 mm. Enclosure was located on turntable.
Test Angle	0°, 30°, 60°, 90°
Test Duration	2 minutes (30 second at each position.)

2.5.3. TEST PERFORMANCE

Functional Test	<ul style="list-style-type: none">• At the end of test.• Performed by customer.
Visual Test	<ul style="list-style-type: none">• At the end of test.• Performed by customer.

2.5.4. TEST PICTURES







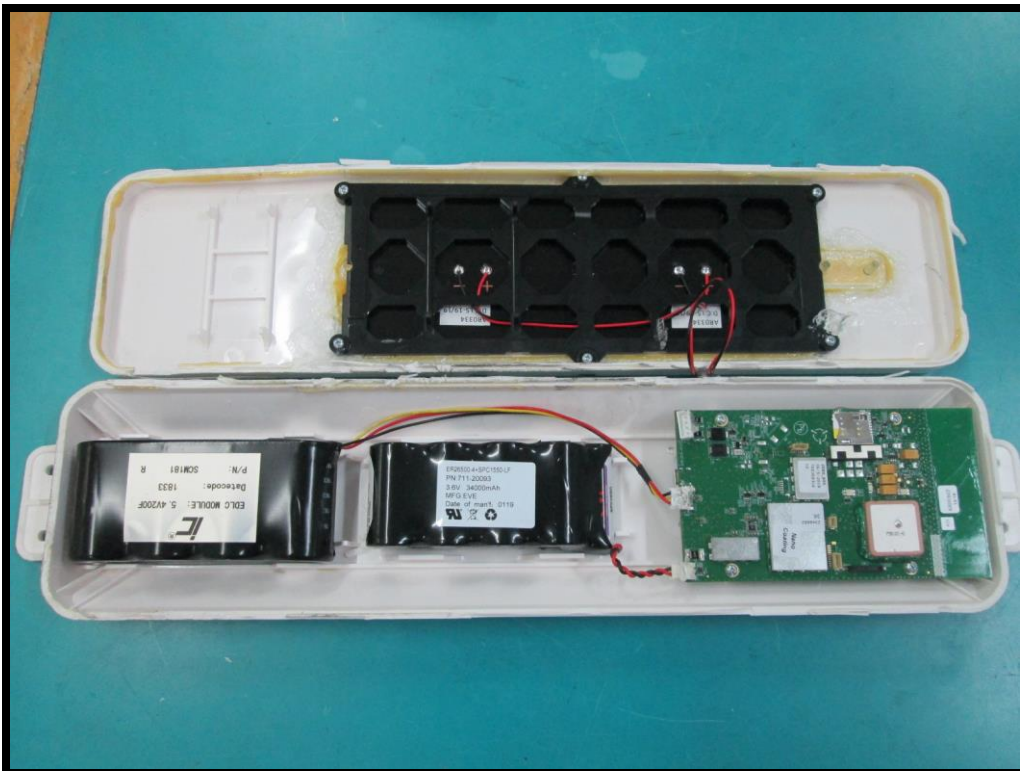
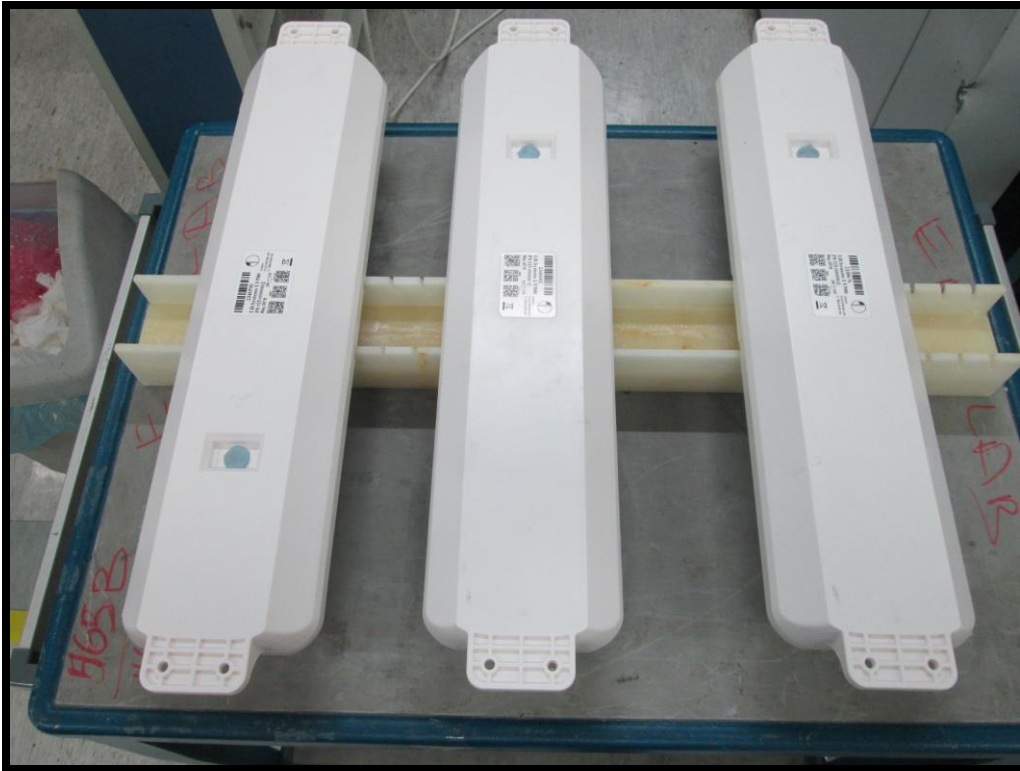


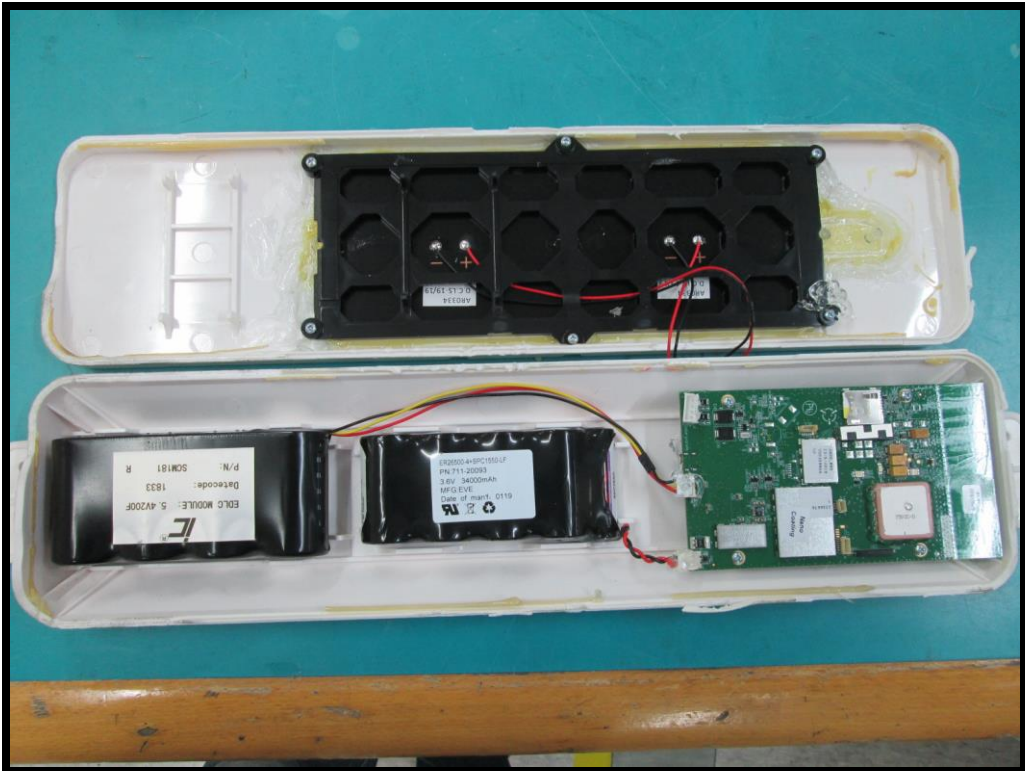
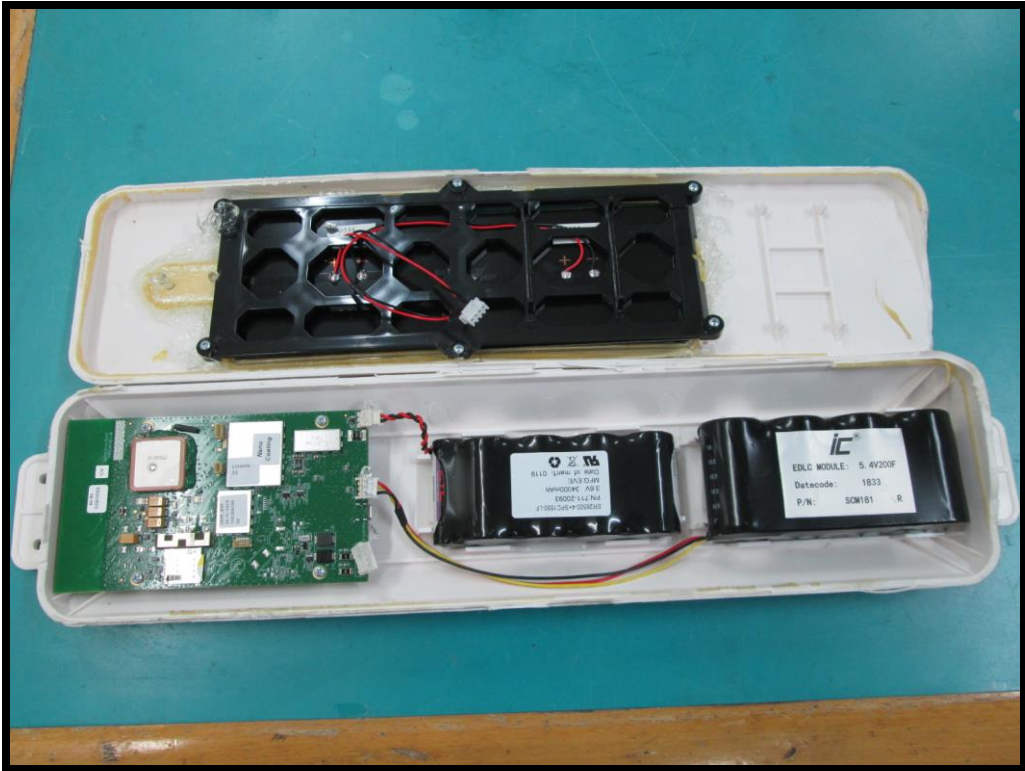


2.6. TEST RESULTS

During visual inspection at completion of the test, no water penetration or external damage was observed. Based on the customer position - The unit under test has PASSED the test. See pictures below:







3. PARAMETERS ACCURACY & UNCERTAINTY BALANCE

ENVIRONMENTAL & MECHANICAL LABORATORIES
 PARAMETERS ACCURACY & UNCERTAINTY **
 Validity 2017

Manufacturer	Model	Description	Parameter	Accuracy *	Uncertainty
AALBORG	DFC36	Gas Flow Controller	LPM	0.5	0.3
ASSOCIATED	SK-3102	Temperature Chamber	Deg.C	1.5	1.5
ASSOCIATED	ZHH-2108	Temperature Chamber	Deg.C	2.7	1.4
ASSOCIATED	ZHH-2127	Temp/Humidity Chamber	Deg.C	1.5	1.37
			RH%	6.1	3.31
BRABENDER	KKW10.000/60	Temperature & Humidity Chamber	Deg.C	1	1.45
			RH%	4.6	3.6
LANSMONT	PDT-56ED	Drop Tester	cm	0.1	0.1
MONARCH	PLT200	RPM Meter	rpm	2	0.5
TENNEY	36S	Altitude/Heat Chamber	Deg.C	0.5	0.8
			Feet	100	100
TENNEY	JUNIOR	Temperature Chamber	Deg.C	0.7	1.5
TENNEY	T30 RC	Temp/Humidity Chamber	Deg.C	1.5	1.51
			RH%	5	3.6
TENNEY	T40 RC	Temp/Humidity Chamber	Deg.C	2.1	1.6
			RH%	2.8	3.6
TENNEY	T-5S	Temperature Chamber	Deg.C	2.1	1.28
THERMOTRON	F-40-CHMV-25-25 -2	Temperature & Humidity Agree Chamber	Deg.C	0.5	2
			RH%	3.4	2.94
THERMOTRON	F-64-CHAMV-10-10 S	Temp. & Humidity & Altitude Chamber	Deg.C	3.5	1.6
			RH%	2.5	3.6
THERMOTRON	SM-8C	Temp/Humidity Chamber	Deg.C	1.2	1.8
			RH%	2	4.6
THERMOTRON	TS-8-3Z-5-5-Ln2	Thermal Shock Chamber	Deg.C	0.9	1.6
U&D	VWIN 2000	Controlled Vibration Machine	g (%)	3	3
Scale	BWLC-10-2	Scale for Mass/Weight up to 10Kg	Gr- Kg (%)	0.1	0.1
WEISS	SNT-400	Salt Fog Chamber	Salt (%)	0.005	0.005
			Deg.C	0.5	0.3
			pH	0.01	0.01
LAB	SC-1000	Bounce Machine	RPM	1	0.5

* Accuracy in (%) only where parameter is defined in (%)

** Unless otherwise specified in the report these are the parameters values.

END OF REPORT