

TECHNICAL REPORT



Report No.: IP1802060

File reference No.: 2018-02-26

Applicant: Barebones Living

Product: Beacon

Model No.: LIV-295/296/297

Brand Name: Barebones

Test Standards: EN 60529:1991+A1:2000+A2:2013, EN 60598-1:2015.

Test Conclusions: The safety testing has been performed on the submitted samples and found in compliance with the standard.

Approved By



Jack Chung

Manager

Dated: 2018-02-26

Results appearing herein relate only to the sample tested
The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China

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1. General Details

1.1 Test Lab Details

Name:	SHENZHEN TIMEWAY TESTING LABORATORIES		
Address:	Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China		
Test Location:	Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China		
Telephone:	(755) 83448688	Fax:	(755) 83442996

1.2 Applicant Details

Applicant	Barebones Living		
Address	1215 East Wilmington Avenue, Suite 140, Salt Lake City, Utah, USA		
Telephone:	--	Fax:	--

1.3 Description of EUT

Product	Beacon
Model Number	LIV-295/296/297
Sample size	--
Brand Name	Barebones
Manufacturer	Ningbo Hisheen Electrical Co., Ltd
Address	Xidian Industry Area, Ninghai, Ningbo

1.4 Rating of Products

Model Number	Nameplate Specification							
	Input				Output			
	Voltage (V)	Current (A)	Power (W)	Frequency (Hz)	Voltage (V)	Current (A)	Power (W)	Frequency (Hz)
LIV-295/296/297	USB: 5Vdc Internal	--	--	--	--	--	--	--

1.5 Statement

N/A

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2. List of Measurement Equipment

Instrument Type	Model No.	Serial No.	Manufacturer	Calibration Date	Calibration Cycle
Waterproof tester	PS-300	201001013	Guangzhou handioriginal equipment manufacture	2017-03-20	One year
Thermograph	7210-00	1300323	SATO KEIRYOKI MFG. CO., LTD.	2017-03-21	One year

3. Technical Details

3.1 Investigations Requested

Perform water or objects tests for Commission Regulation EN 60529:1991+A1:2000+A2:2013, EN 60598-1:2015.

Degrees of protection provided by enclosures (IP Code): IPX4

3.2 Test Standards

EN 60529:1991+A1:2000+A2:2013, EN 60598-1:2015.

4. Test Date, Engineer & Verify Engineer

Sample Received Date: 2018-02-23	
Test Date: 2018-02-23 to 2018-02-26	
Test Engineer: The sample(s) tested by Print Name:	David Guo / Engineer
Verify Engineer: The report verified by	Jack Chung / Manager
This test report is not valid without personnel's signatures of SHENZHEN TIMEWAY TESTING LABORATORIES	

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5. Test and result

Description of IP Code — IPX4

——Degree of protection against splashing water is 4.

5.1 Second characteristic numeral

IPX4	
Test method	<p>The oscillating tube has spray holes over the whole 180°of the semicircle The total flow rate is adjusted as specified in table 9 and is measured with a flow meter</p> <p>The tube is caused to oscillate through an angle of almost 360°on either side of the vertical, the time for one complete oscillation(2x360°)being about 12s</p> <p>The duration of the test is10 min.</p> <p>If not specified otherwise in the relevant product standard, the support for the enclosure under test is perforated so as to avoid acting as a baffle and the enclosure is sprayed from every direction by oscillating the tube to the limit of its travel in each direction</p> <p>The conditions to be observed are as follows:</p> <ul style="list-style-type: none"> — Number of open holes:75; — delivery rate: 5.3L/min; — water pressure: to be adjusted to achieve the specified delivery rate;
Acceptance conditions	<p>In general, if any water has entered, it shall not:</p> <ul style="list-style-type: none"> — be sufficient to interfere with the correct operation of the equipment or impair safety; — deposit on insulation parts where it could lead to tracking along the creepage distances; — reach live parts or windings not designed to operate when wet; — accumulate near the cable end or enter the cable if any. <p>If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment.</p> <p>For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.</p>
Result	There is no water inside the enclosure.
Conclusion	The product under test pass the requirements of degree 4 of protection against ingress of water.

Atmospheric conditions during the tests complys with the recommended as follows:

Temperature range: 15 °C to 35 °C

Relative humidity: 25 % to 75 %

Air pressure: 86 kPa to 106 kPa (860 mbar to 1 060 mbar).

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5.2 Photos:



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-- End of the Report --

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