



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0257 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: WattStopper

Manufacturer's Technical Representative: Ariel Gruspe

Mailing Address: 2800 De La Cruz Blvd., Santa Clara, CA 95050

Telephone: (408) 486-7546

Email: ariel.gruspe@wattstopper.com

Product Information

Product Name: LI & LMCP

Product Type: Lighting Control Panels

Product Model Number: See Certified Product Listing tables, attached.

(List all unique product identification numbers and/or part numbers)

General Description: The system consists of wall-mounted lighting control panels containing circuit boards, relays, communication cards, contactors, and power supplies.

Mounting Description: Rigid wall-mounted

Applicant Information

Applicant Company Name: WattStopper

Contact Person: Ariel Gruspe

Mailing Address: 2800 De La Cruz Blvd., Santa Clara, CA 95050

Telephone: (408) 486-7546

Email: ariel.gruspe@wattstopper.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

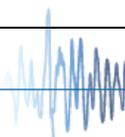
Signature of Applicant:

Date: March 31, 2013

Title: Sr. QA Engineer

Company Name: WattStopper

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"



osHPd



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: Forell/Elsesser Engineers, Inc.

Name: Marco Scanu, SE California License Number: S4454

Mailing Address: 160 Pine St., 6th Flr., San Francisco, CA 94111

Telephone: (415) 837-0700 Email: m.scanu@forell.com

Supports and Attachments Preapproval

- Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- Supports and attachments are not preapproved

Certification Method

- Testing in accordance with: ICC-ES AC156
- Other (Please Specify): _____

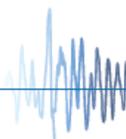
Testing Laboratory

Company Name: National Technical Systems

Contact Name: Deepa Shetty

Mailing Address: 38995 Cherry Street, Newark, CA94560

Telephone: (510) 578-3500 Email: deepa.shetty@nts.com





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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: Yes No

Design Basis of Equipment or Components (F_p/W_p) = 1.88

S_{DS} (Design spectral response acceleration at short period, g) = 2.50

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.5

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component Natural Frequencies (Hz) = n/a

Overall dimensions and weight (or range thereof) = See Certified Product Listing tables

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: Yes No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = _____

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = _____

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2010: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): Enclosure, Component, UUT Lists

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2019

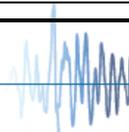
Signature:  Date: June 12, 2014

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.50 z/h = 1.0

Condition of Approval (if applicable): _____

Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs



**WattStopper - Lighting Control Panels
Certified Product Summary**

LI, LP, & LMCP Lighting Control Panels ²	Width	Depth	Height	Maximum Weight¹	Testing Status
LI-8 ³	17.0 in	5.0 in	16.0 in	27.0 lbs	R86371 - LI-8
LI-24 ⁴	24.0 in	5.0 in	32.0 in	66.0 lbs	R86371 - LI-24
LI-48 ⁵	24.0 in	5.0 in	45.0 in	82.0 lbs	R86371 - LI-48
LMCP-8 ³	18.5 in	4.8 in	17.0 in	26.0 lbs	R94679 - LMCP-8
LMCP-24 ⁴	24.0 in	4.5 in	32.0 in	60.0 lbs	R94679 - LMCP-24
LMCP-48 ⁵	26.0 in	4.5 in	45.8 in	89.0 lbs	R94679 - LMCP-48

Notes:

1. Weight includes internal components.
2. All control panels are 16 ga carbon Steel NEMA-1 Enclosures with 14 ga carbon steel covers.
3. LI-8 and LMCP-8 are available with a flush mounted with 18.5"x17" cover.
4. LI-24 and LMCP-24 are available with a flush mounted with 26"x33.5" cover.
5. LI-48 and LMCP-24 are available with a flush mounted with 26"x46" cover.

**WattStopper - Lighting Control Panels
Certified Internal Components**

LI & LMCP Lighting Control Panels

Internal Components	Manufacturer	Part #	Testing Status
Power Supply Module	Ohga Inc.	437D535G06	LI-8, 24, 48; LMCP-8, 24, 48
		579B373G02	LI-8, 24, 48; LMCP-8, 24, 48
Power Supply Assembly	Ohga Inc.	579B410G01	LI-8, 24, 48; LMCP-8, 24, 48
Power Supply (DALI PS) Assembly	Ohga Inc.	579B442G01	LI-48, LMCP-48
Power Supply (PS) Assembly	Ohga Inc.	579B410G01	LI-48, LMCP-48
115V/277V, 50Hz/60Hz Transformer	Basler	BE31820001	LI-8, LMCP-8
		BE31820003	LI-24, 48; LMCP-24, 48
28V, 50Hz/60Hz Transformer	MCI Transformer	2-51-0305	LI-8, 24, 48; LMCP-8, 24, 48
User Interface Console (LM-U)	Ohga Inc.	77-0299-132	LI-8
User console interface board (LM-I)	Ohga Inc.	77-0303-102	LI-8
Relay Driver Board (RD)	Ohga Inc.	483C417G01	LI-8, 24, 48
Relays	Gruner	HDR	LI-8, 24, 48
Relays	Gruner	HDR-9	LMCP-8, 24, 48
Main Interface board	Ohga Inc.	437D884G01	LI-8
Group Card	Ohga Inc.	437D884G01	LI-8
ELUC-100 Lighting Control	Shanghai Legrand Electric Co.	ELCU-100	LI-24, 48
Contactors	ABB	A16-04-00	LI-24, 48
Interface/Communication Card	Ohga Inc.	579B449G01	LI-24
Communication Card	Ohga Inc.	579B404G01	LI-48
		579B404G02	LI-48
Lonworks LW/LC Communication Card	Ohga Inc.	579B404G01	LI-24, 48
		579B404G02	LI-24, 48
		579B404G03	LI-24, 48
Group Card	Ohga Inc.	437D884G01	LI-24
Programming Module	WattStopper	HCLK8SS	LI-24
LMPI Circuit Board	Ohga Inc.	16615	LMCP-24
LMRD-8 Circuit Board	Ohga Inc.	16916	Interpolated
LMRD-12 Circuit Board	Ohga Inc.	16694	LMCP-24
LMPI Circuit Board	Shanghai Legrand Electric Co.	16615	LMCP-8, 48
LMRD-8 Circuit Board	Shanghai Legrand Electric Co.	16916	LMCP-8
LMRD-12 Circuit Board	Shanghai Legrand Electric Co.	16694	LMCP-48
Test Reports: R86371: LI-8 (ENV-1), LI-24 (ENV-2), LI-48 (ENV-3) R94679: LMCP-8, LMCP-24, LMCP-48			

TEST SUMMARY

Test Report R86371

Tested Unit NTS-ENV-1 (Smallest Unit)

LI-8 Control Panel

16 ga Carbon Steel NEMA 1 enclosure with 14ga cover

16"H X 17"W X 5"D

Weight: 27 lbs

Wall Mounted with (4) – 3/8" dia bolts

The unit was full of content during testing.



Test Unit is on the Right

Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.50	1	4.00g	3.00g	1.67g	0.67g
Natural Frequencies		Test Results					
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

Internal Components	Manufacturer	Part #
Power Supply Module	Ohga Inc.	437D535G06
		579B373G02
Power Supply Assembly	Ohga Inc.	579B410G01
Transformer	Basler	BE31820001
	MCI Transformer	2-51-0305
User Interface Console (LM-U)	Ohga Inc.	77-0299-132
User console interface board (LM-I)	Shanghai Legrand Electric Co.	77-0303-102
Relay Driver Board (RD)	Ohga Inc.	483C417G01
Relays	Gruner	HDR
Main Interface board	Ohga Inc.	437D884G01
Group Card	Shanghai Legrand Electric Co.	437D884G01

Test Report R86371

Tested Unit NTS-ENV-2 (Intermediate Unit)

LI-24 Control Panel

16 ga Carbon Steel NEMA 1 enclosure with 14ga cover

32”H X 24”W X 5”D

Weight: 66 lbs

Wall Mounted with (4) – 3/8” dia bolts

The unit was full of content during testing.



Test Unit is on the Left

Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.50	1	4.00g	3.00g	1.67g	0.67g
Natural Frequencies			Test Results				
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

Internal Components	Manufacturer	Part #
Relays	Gruner	HDR
Relay Driver Board (RD)	Ohga Inc.	483C417G01
Power Supply Module	Ohga Inc.	437D535G06
		579B373G02
Power Supply Assembly	Ohga Inc.	579B410G01
Transformer	Basler	BE3182003
	MCI Transformer	2-51-0305
ELUC-100 Lighting Control	Shanghai Legrand Electric Co.	ELCU-100
Contactors	ABB	A16-04-00
Interface/Communication Card	Ohga Inc.	579B449G01
Lonworks LW/LC Communication Card	Ohga Inc.	579B404G01
	Ohga Inc.	579B404G02
	Ohga Inc.	579B404G03
Programming Module	Wattstopper	HCLK8SS
Programming Module Display Circuit Board	Ohga Inc.	HDM64GS12L-L32S
Group Card	Ohga Inc.	437D884G01

Test Report R86371

Tested Unit NTS-ENV-3 (Largest Unit)

LI-48 Control Panel

16 ga Carbon Steel NEMA 1 enclosure with 14ga cover
45"H X 24"W X 5"D

Weight: 82 lbs

Wall Mounted with (4) – 3/8" dia bolts

The unit was full of content during testing.



Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.50	1	4.00g	3.00g	1.67g	0.67g
Natural Frequencies			Test Results				
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

Internal Components	Manufacturer	Part #
Relays	Gruner	HDR
Relay Driver Board (RD)	Shanghai Legrand Electric Co.	483C417G01
Power Supply Module	Ohga Inc.	437D535G06
		579B373G02
Power Supply (DALI PS) Assembly	Ohga Inc.	579B442G01
Power Supply (PS) Assembly	Ohga Inc.	579B410G01
Transformer	Basler	BE31820003
	MCI Transformer	2-51-0305
Lonworks LW/LC Communication Card	Shanghai Legrand Electric Co.	579B404G01
	Shanghai Legrand Electric Co.	579B404G02
	Shanghai Legrand Electric Co.	579B404G03
Communication Card	Shanghai Legrand Electric Co.	579B404G01
	Ohga Inc.	579B404G02
ELUC-100 Lighting Control	Shanghai Legrand Electric Co.	ELCU-100
Contactor	ABB	A16-04-00

Test Report R94679

Tested Unit LMCP-8 (Smallest Unit)

LMCP-8 Control Panel

16 ga Carbon Steel NEMA 1 enclosure

w/ 14 ga cover

17"H X 18.5"W X 4.75"D

Weight: 26 lbs

Wall Mounted with (4) – 3/8" dia bolts

The unit was full of content during testing.



Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.50	1	4.00g	3.00g	1.67g	0.67g
Natural Frequencies		Test Results					
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

Internal Components	Manufacturer	Part #
Power Supply Module	Ohga Inc.	437D535G06
		579B373G02
Power Supply (PS) Assembly	Ohga Inc.	579B410G01
Transformer	Basler	BE31820001
	MCI Transformer	2-51-0305
LMPI Circuit Board	Shanghai Legrand Electric Co.	16615
LMRD-8 Circuit Board	Shanghai Legrand Electric Co.	16916
Relays	Gruner	HDR-9

Test Report R94679

Tested Unit LMCP-24 (Intermediate Unit)

LMCP-24 Control Panel

16 ga Carbon Steel NEMA 1 enclosure

w/ 14 ga cover

32"H X 24"W X 4.5"D

Weight: 60 lbs

Wall Mounted with (4) – 3/8" dia bolts

The unit was full of content during testing.



Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.50	1	4.00g	3.00g	1.67g	0.67g
Natural Frequencies		Test Results					
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

Internal Components	Manufacturer	Part #
Power Supply Module	Ohga Inc.	437D535G06
		579B373G02
Power Supply (PS) Assembly	Ohga Inc.	579B410G01
Transformer	Basler	BE31820003
	MCI Transformer	2-51-0305
LMPI Circuit Board	Shanghai Legrand Electric Co.	16615
LMRD-12 Circuit Board	Shanghai Legrand Electric Co.	16694
Relays	Gruner	HDR-9

Test Report R94679

Tested Unit LMCP-48 (Largest Unit)

LMCP-48 Control Panel

16 ga Carbon Steel NEMA 1 enclosure

w/ 14 ga cover

45.75" H X 26" W X 4.5" D

Weight: 89 lbs

Wall Mounted with (4) – 3/8" dia bolts

The unit was full of content during testing.



Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.50	1	4.00g	3.00g	1.67g	0.67g
Natural Frequencies			Test Results				
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

Internal Components	Manufacturer	Part #
Power Supply Module	Ohga Inc.	437D535G06
		579B373G02
Power Supply (DALI PS) Assembly	Ohga Inc.	579B442G01
Power Supply (PS) Assembly	Ohga Inc.	579B410G01
Transformer	Basler	BE31820003
	MCI Transformer	2-51-0305
LMPI Circuit Board	Ohga Inc.	16615
LMRD-12 Circuit Board	Ohga Inc.	16694
Relays	Gruner	HDR-9