



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0132

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: West-Com Nurse Call System Inc.

Manufacturer's Technical Representative: Jonathan Peters

Mailing Address: 2200 Cordelia Rd. Fairfield, CA 94534

Telephone: (707) 428-5900

Email: jpeters@westcomtv.com

Product Information

Product Name: Electrical Control Panels on Life Safety/Critical Branch

Product Type: Nurse Call Stations

Product Model Number: Novus 36/24/0x, Novus 18/22/0x, WOC-8500, EV-32, 64, 96 w/SMC, Novus HRM, I-Dome HRM

General Description: Nurse Call Infrastructure and Head End Control Terminal equipment.

Mounting Description: Rigid, Wall Mounted

Tested Seismic Enhancements: None

DATE: 01/13/2023

Applicant Information

Applicant Company Name: Buehler Engineering, Inc.

Contact Person: Gillian Montgomery

Mailing Address: 600 Q Street Suite 200, Sacramento, CA 95811

Telephone: (916) 443-0303

Email: gmontgomery@buehlerengineering.com

Title: Senior Associate





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

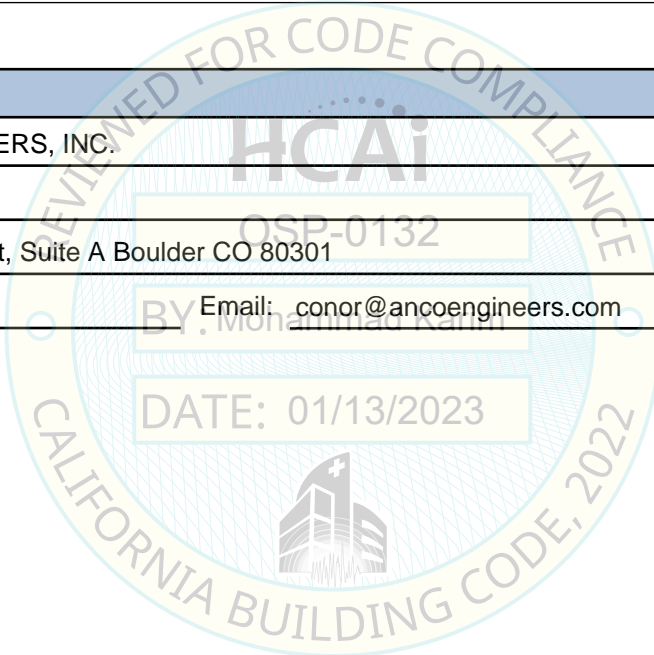
Company Name: BUEHLER ENGINEERING, INC.
Name: Scott Hooker California License Number: S3937
Mailing Address: 600 Q St., Suite 200 Sacramento, CA 95811
Telephone: (916) 443-0303 Email: shooker@buehlerengineering.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
 Other (Please Specify): _____

Testing Laboratory

Company Name: ANCO ENGINEERS, INC.
Contact Person: Conor Byrne
Mailing Address: 1965 33rd Street, Suite A Boulder CO 80301
Telephone: (303) 443-7580 Email: conor@ancoengineers.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.15

SDS (Design spectral response acceleration at short period, g) = 1.54

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

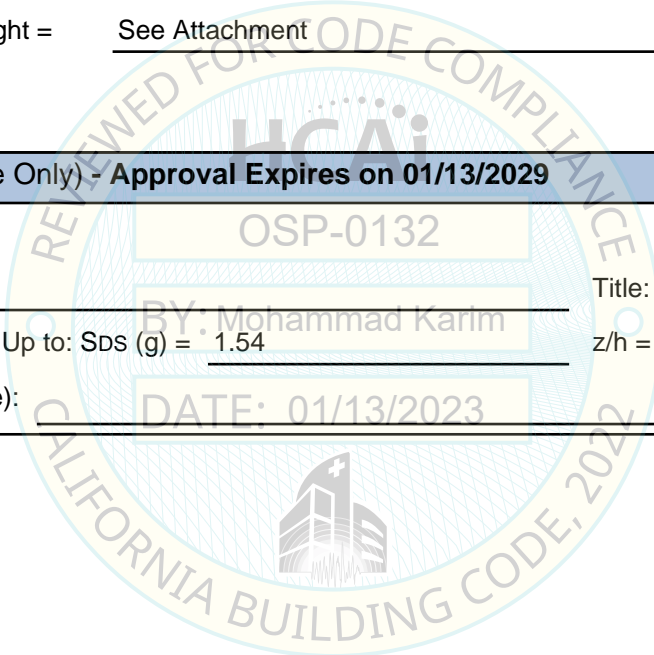
HCAI Approval (For Office Use Only) - Approval Expires on 01/13/2029

Date: 1/13/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 1.54 z/h = 1

Condition of Approval (if applicable): DATE: 01/13/2023



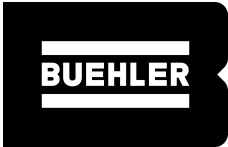


Table 1. Certified Product List

<i>Model Number</i>	<i>Cabinet</i>	<i>Tested/ Interpolated</i>	<i>Length (in)</i>	<i>Width (in)</i>	<i>Height (in)</i>	<i>Operating Weight (lbs)</i>
NV HRM	1212	Extrpolated	6	12	12	15
I-Dome HRM	1212	UUT-1	6	12	12	15
NV PSM/1	1822	Interpolated	6	22	18	42.5
NV PSM/2	1822	Interpolated	6	22	18	42.5
NV PSM/3	1822	Interpolated	6	22	18	42.5
NV PSM/4	1822	Interpolated	6	22	18	42.5
NV PSM/5	1822	UUT-2	6	22	18	42.5
NOVUS/1822/00	1822	Interpolated	6	22	18	68
NOVUS/1822/01	1822	Interpolated	6	22	18	68
NOVUS/1822/02	1822	Interpolated	6	22	18	68
NOVUS/1822/03	1822	Interpolated	6	22	18	68
NOVUS/3624/00	3624	Interpolated	6	24	36	68
NOVUS/3624/01	3624	Interpolated	6	24	36	68
NOVUS/3624/02	3624	Interpolated	6	24	36	68
NOVUS/3624/03	3624	Interpolated	6	24	36	68
NOVUS/3624/04	3624	Interpolated	6	24	36	68
NOVUS/3624/05	3624	Interpolated	6	24	36	68
NOVUS/3624/06	3624	Interpolated	6	24	36	68
NOVUS/3624/07	3624	Interpolated	6	24	36	68
NOVUS/3624/08	3624	UUT-3	6	24	36	68
WOC-8500	3624	UUT-4	6	24	36	70.5
EV-32	1822	Interpolated	6	22	18	72.5
EV-64	1822	Interpolated	6	22	18	72.5
EV-32 W/SMC	1822	Interpolated	6	22	18	72.5
EV-64 W/SMC	1822	Interpolated	6	22	18	72.5
EV-96	3624	Interpolated	6	24	36	72.5
EV-128	3624	Interpolated	6	24	36	72.5
EV-96 W/SMC	3624	Interpolated	6	24	36	72.5
EV-128 W/SMC	3624	UUT-5	6	24	36	72.5

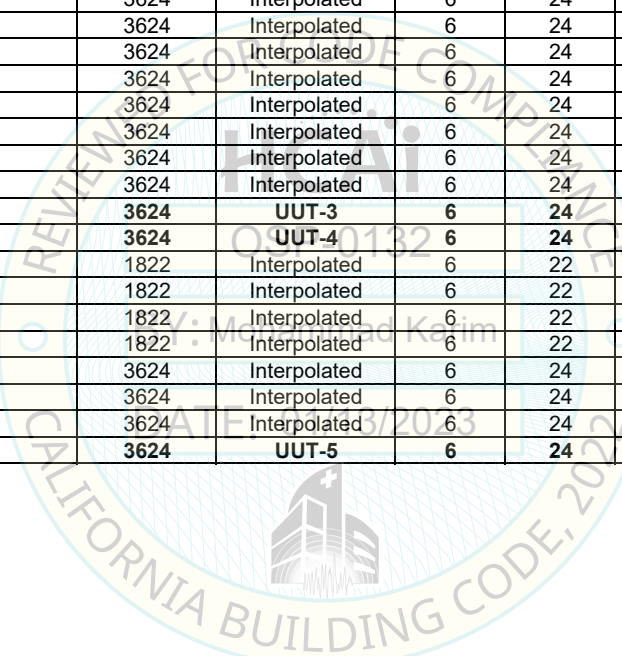


Table 2. Certified Sub-Component List

Control Box					
<i>Part Number</i>	<i>Weight (lb)</i>	<i>Size</i>	<i>Manufacturer</i>	<i>Material</i>	<i>Interpolated / Included With Test</i>
1212	10lbs	12" x 12" x 6"	Hoffman	16 Ga Cold Rolled Stainless Steel	UUT-1
1822	33lbs	18" x 22" x 6"	States Electric	16 Ga Cold Rolled Stainless Steel	UUT-2
3624	63lbs	36" x 24" x 6"	States Electric	14 Ga Cold Rolled Stainless Steel	UUT-3, UUT-4, UUT-5

Module					
<i>Part Number</i>	<i>Weight (lb)</i>	<i>Cabinet</i>	<i>Manufacturer</i>	<i>Material</i>	<i>Interpolated / Included With Test</i>
Jumper Wire	2lbs	1212	West-Com	FR4 Printed Circuit Board	UUT-1
30123024	1lbs	1822	West-Com	FR4 Printed Circuit Board	UUT-2
40118001	1lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-3
30123029	1lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-3
30118143	1lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-3
30118112	2lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-3
20121018	1lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-3
30118013	2lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30123030	2lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118006	1lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118107	1lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118023	1lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118008	1lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118004	1lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118003	1lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118007	1lbs	3624	West-Com	FR4 Printed Circuit Board	UUT-4
30118085	1lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-5
30018144	1lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-5
30118144	1lbs	1822 & 3624	West-Com	FR4 Printed Circuit Board	UUT-5

UUT-1 Test Summary

Testing Lab:	ANCO Engineers
Testing Report:	3308.01
Testing Unit Num:	I-Dome HRM

Model Number	Operating Weight (lbs)	Mounting	Excitation Direction	Frequency* (Hz)	Length (in)	Width (in)	Height (in)
I-Dome HRM	15	Wall Mounted	X	Front - Back	NA	6.25	12.25
			Y	Side - Side	NA		
			Z	Vertical	NA		

* Frequencies are for units prior to ICC ES AC-156 testing.

Attachment Method	4 - #14 Sheet Metal Screws	Seismic Parameters							
		Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
						A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
		CBC 2022	AC 156	1.54	1.0	2.46	1.85	1.64	1.23

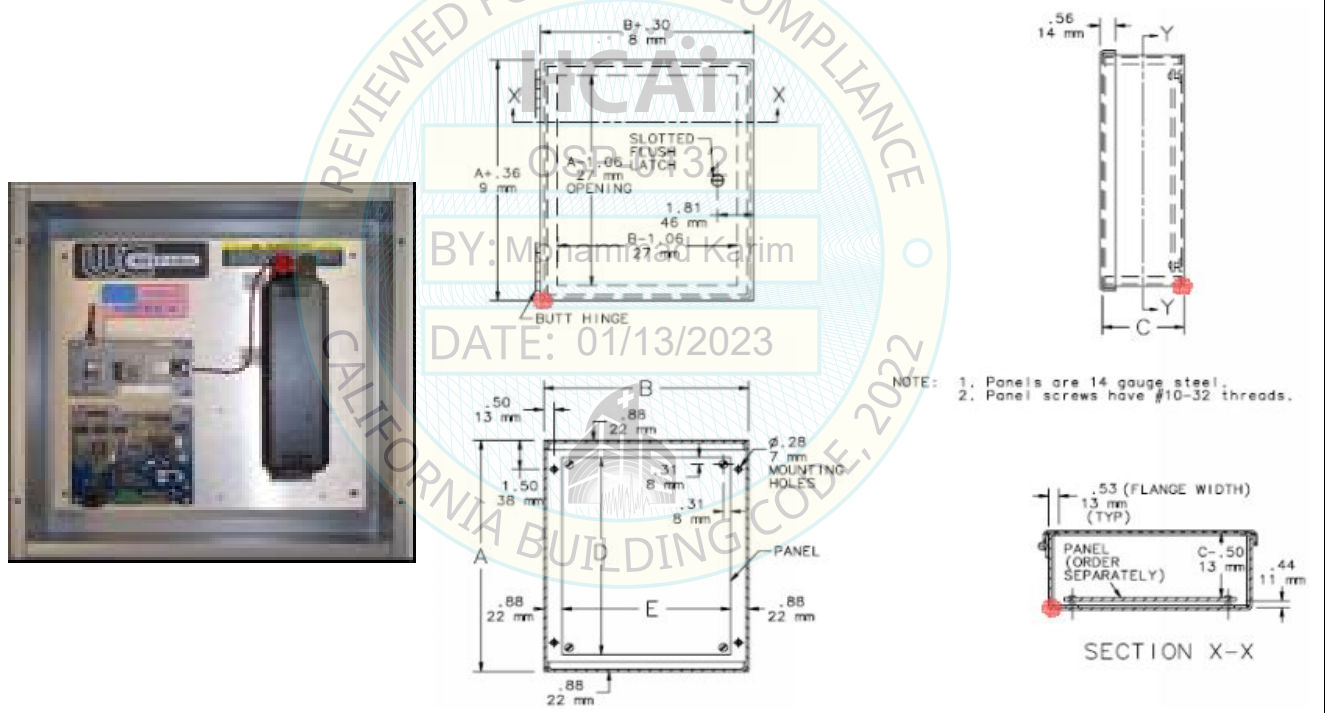


Figure 1.1: I-Dome HRM

Figure 1.2: Location of Origin / Mounting Locations

Notes: The UUTs were full of contents during the test.
 Unit maintained structural integrity and remained functional per manufacture requirements after shake table test

UUT-1 Summary Tested Sub-Component

Subcomponent	Part Number	Manufacturer
Module	Jumper Wire	West-Com
Control Box	1212	Hoffman

UUT-2 Test Summary

Testing Lab:	ANCO Engineers
Testing Report:	3308.01
Testing Unit Num:	NV PSM/5

Model Number	Operating Weight (lbs)	Mounting	Excitation Direction	Frequency* (Hz)	Length (in)	Width (in)	Height (in)	
NV PSM/5	42.5	Wall Mounted	X	Front - Back	NA	6.25	21.5	18
			Y	Side - Side	NA			
			Z	Vertical	NA			

* Frequencies are for units prior to ICC ES AC-156 testing.

Attachment Method	4 - #14 Sheet Metal Screws	Seismic Parameters							
		Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
		CBC 2022	AC 156	1.54	1.0	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
						2.46	1.85	1.64	1.23



Figure 2.1: NV PSM/5

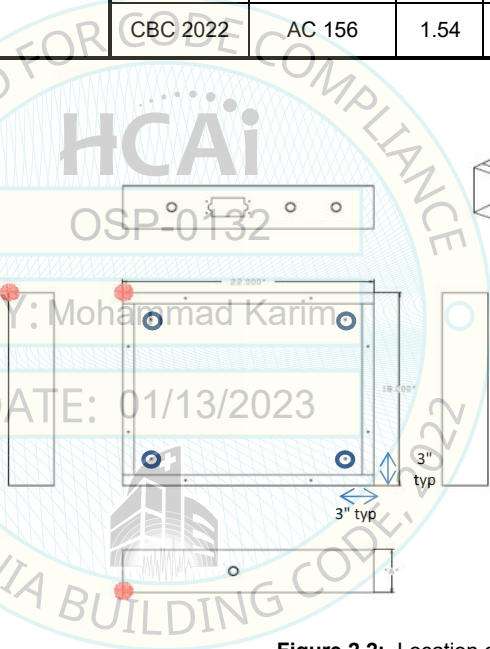
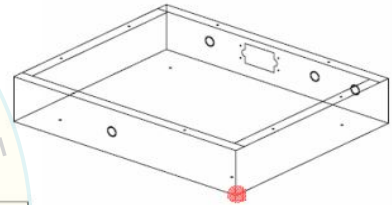


Figure 2.2: Location of Origin / Mounting Locations



PSM-1	4.00
PSM-12	5.00

PART NAME - PSM-15X22 ENCLOSURE
 MATERIAL - 14 CRS
 FINISH - ASA 51
 STATES ELECTRIC MFG. CO.
 MINNEAPOLIS, MN
 (763)-558-0538

Notes: The UUTs were full of contents during the test.
 Unit maintained structural integrity and remained functional per manufacture requirements after shake table test

UUT-2 Summary Tested Sub-Component

Subcomponent	Part Number	Manufacturer
Module	30123024	West-Com
Control Box	1822	States Electric

UUT-3 Test Summary

Testing Lab:	ANCO Engineers
Testing Report:	3308.01
Testing Unit Num:	NOVUS/3624/08

Model Number	Operating Weight (lbs)	Mounting	Excitation Direction	Frequency* (Hz)	Length (in)	Width (in)	Height (in)	
NOVUS/3624/08	68	Wall Mounted	X	Front - Back	NA	6.5	24	36
			Y	Side - Side	NA			
			Z	Vertical	NA			

* Frequencies are for units prior to ICC ES AC-156 testing.

Attachment Method	4 - #14 Sheet Metal Screws	Seismic Parameters							
		Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
		CBC 2022	AC 156	1.54	1.0	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
						2.46	1.85	1.64	1.23



Figure 3.1: NOVUS/3624/08

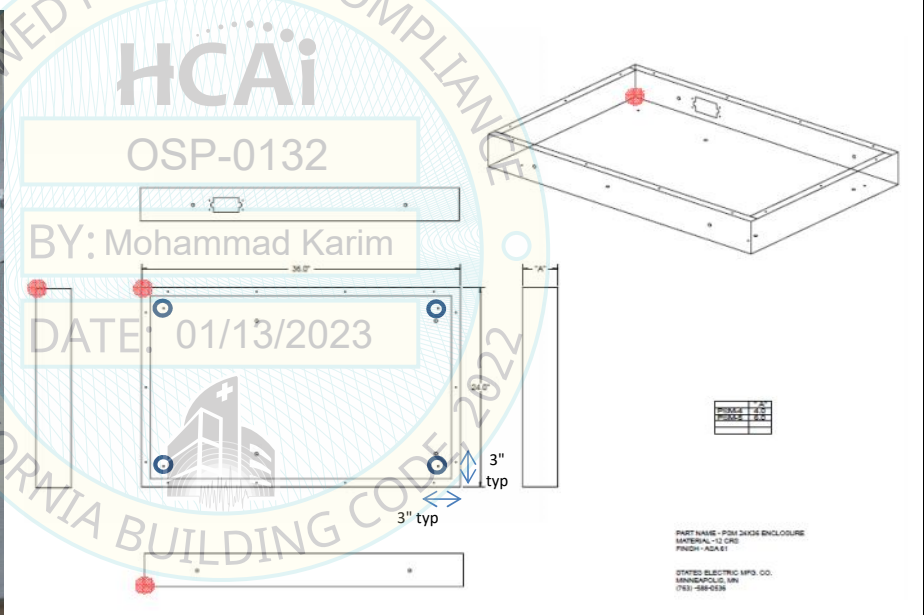

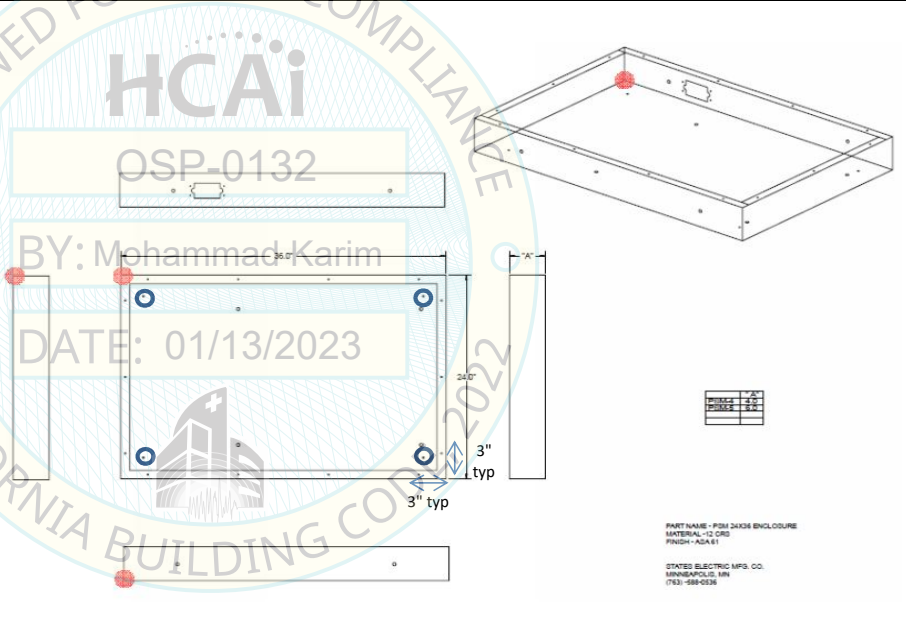


Figure 3.2: Location of Origin / Mounting Locations

Notes: The UUTs were full of contents during the test.
Unit maintained structural integrity and remained functional per manufacture requirements after shake table test

UUT-3 Summary Tested Sub-Component

Subcomponent	Part Number	Manufacturer
Module	40118001	West-Com
Module	30123029	West-Com
Module	30118143	West-Com
Module	30118112	West-Com
Module	20121018	West-Com
Control Box	3624	States Electric

UUT-4 Test Summary											
Testing Lab:		ANCO Engineers									
Testing Report:		3308.01									
Testing Unit Num:		WOC-8500									
Model Number	Operating Weight (lbs)	Mounting	Excitation Direction		Frequency* (Hz)	Length (in)	Width (in)	Height (in)			
WOC-8500	70.5	Wall Mounted	X	Front - Back	NA	6.5	24	36			
			Y	Side - Side	NA						
			Z	Vertical	NA						
* Frequencies are for units prior to ICC ES AC-156 testing.											
Attachment Method		4 - #14 Sheet Metal Screws		Seismic Parameters							
				Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				CBC 2022	AC 156	1.54	1.0	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
								2.46	1.85	1.64	1.23
 <p>Figure 4.1: WOC-8500</p>			 <p>Figure 4.2: Location of Origin / Mounting Locations</p>								
Notes: The UUTs were full of contents during the test. Unit maintained structural integrity and remained functional per manufacture requirements after shake table test											

UUT-4 Summary Tested Sub-Component

Subcomponent	Part Number	Manufacturer
Module	30118013	West-Com
Module	30123030	West-Com
Module	30118006	West-Com
Module	30118107	West-Com
Module	30118023	West-Com
Module	30118008	West-Com
Module	30118004	West-Com
Module	30118003	West-Com
Module	30118007	West-Com
Control Box	3624	States Electric

UUT-5 Test Summary

Testing Lab: ANCO Engineers
 Testing Report: 3308.01
 Testing Unit Num: EV-128W/SMC

Model Number	Operating Weight (lbs)	Mounting	Excitation Direction		Frequency* (Hz)	Length (in)	Width (in)	Height (in)
EV-128W/SMC	72.5	Wall Mounted	X	Front - Back	NA	6.5	24	36
			Y	Side - Side	NA			
			Z	Vertical	NA			

* Frequencies are for units prior to ICC ES AC-156 testing.

Attachment Method	4 - #14 Sheet Metal Screws	Seismic Parameters							
		Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
						A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
		CBC 2022	AC 156	1.54	1.0	2.46	1.85	1.64	1.23

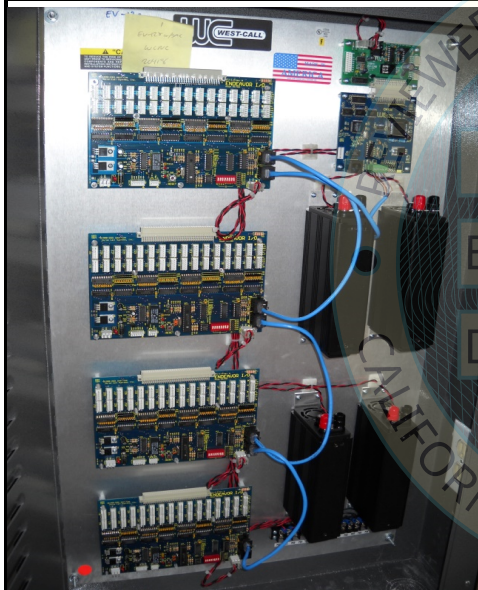


Figure 5.1: EV-128W/SMC

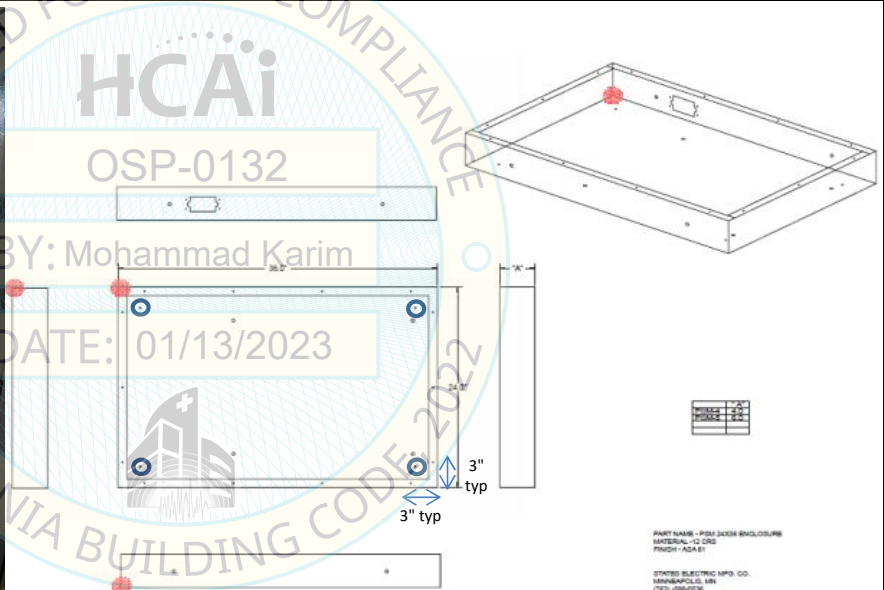


Figure 5.2: Location of Origin / Mounting Locations

Notes: The UUTs were full of contents during the test.
 Unit maintained structural integrity and remained functional per manufacture requirements after shake table test

UUT-5 Summary Tested Sub-Component

Subcomponent	Part Number	Manufacturer
Module	30118085	West-Com
Module	30018144	West-Com
Module	30118144	West-Com
Control Box	3624	States Electric