SILENT KNIGHT

SK5895XL Calculations
Version 10.24.14

Global Project Values:

Project Name:	Portland High School	Standby Hours:	24
Project ID:		Alarm Mins:	5
Prepared By:	Kevin Inman	Derating Factor:	1.2
Date:	6/28/2016	Voltage Drop Warning Threshold % :	10

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 08/18/16

Panel ID:	5895XL	Model: 5895XL Power Expander	Max NAC Current: 3.0 Am
Location:	Second Floor 103B	Volts: 24 VDC	Max Panel Current: 6.0 Amps

Part.#	Description	Qty	Current Draw Standby	Current Draw Alarm	Wire AWG & Type	Ohms Per 1000 Ft.	Length(ft) One-Way	Actual Ohms	Volts @ EOL	%Drop
5895XL	5895XL Pwr Module	1	0.040	0.160						
SK	Photo, Photo-T		0.000	0.000						
SK	Ion		0.000	0.000						
SK	Heat, Heat-HT		0.000	0.000						
SK	Heat ROR		0.000	0.000						
SK	Beam, Beam-T		0.000	0.000						
SK	Duct		0.000	0.000						
SK	Acclimate		0.000	0.000						
SK	FIRE-CO		0.000	0.000						
SK	Control		0.000	0.000						
SK	Relaymon-2		0.000	0.000						
SK	Control-6		0.000	0.000						
SK	Monitor, Minimon		0.000	0.000						
SK	Monitor-2		0.000	0.000						
SK	Monitor-10		0.000	0.000						
SK	Pull-SA, Pull-DA		0.000	0.000						
SK	Relay		0.000	0.000						
SK	Relay-6		0.000	0.000						
SK	Zone		0.000	0.000						
SK	Zone-6		0.000	0.000						
SK	Isolator		0.000	0.000						
B224BI	Isolator Base		0.000	0.000			N/A			
B200SR	Sounder Base		0.000	0.000						
B200S	Intelligent Sounder Base		0.000	0.000						
B200SR-LF	Low Freq Sounder Base		0.000	0.000						
B200S-LF	Low Freq Sounder Base		0.000	0.000						
B224RB	Relay Base		0.000	0.000						
RTS151	Magnetic Remote Test		0.000	0.000						
RTS151KEY	Key Activated Test		0.000	0.000						
RA100Z	Remote LED		0.000	0.000						
5815XL	SLC Expander		0.000	0.000						
5860	LCD Remote Annunc		0.000	0.000						
5824	Serial/Parallel Module		0.000	0.000						
5496	Power Expander		0.000	0.000						
5895XL	Power Expander		0.000	0.000						
5865-4	LED Annunciator (4G)		0.000	0.000						
5865-3	LED Annunciator (3G)		0.000	0.000						
5880	LED Driver Module		0.000	0.000						
5883	Relay Module		0.000	0.000						
EVS-SW24	Switch Expander		0.000	0.000						
EVS-AMP	50W, 100W, 125W		0.000	0.000						
EVS-RVM	Remote Voice Module		0.000	0.000						
EVS-100WBU	Backup Amp Card		0.000	0.000						
PGM-I/O #1	Notification Appl Circuit		0.000	0.000	#12 Solid	1.59	225	0.72	19.55	4.15%
PGM-I/O #2	Notification Appl Circuit		0.000	1.184	#14 Stranded	2.52	150	0.76	19.64	3.74%
PGM-I/O #3	Notification Appl Circuit		0.000	1.008	#14 Stranded	2.52	250	1.26	19.43	4.73%
PGM-I/O #4	Notification Appl Circuit		0.000	0.766	#14 Stranded	2.52	100	0.50	19.99	2.00%
PGM-I/O #5	Notification Appl Circuit		0.000	0.810	#14 Stranded	2.52	200	1.01	20.40	0.00%
PGM-I/O #6	Notification Appl Circuit		0.000	0.000	250					
	Total Standby Current (Amps)		0.040	3.928	Alarm Time In Minutes / 60		(5 Mins)			
	Standby Time In Hours		24	0.083	Total Alarm AH Required					
	Total Standby AH Required		0.960	0.327						
	Total Combined AH Required		1.29							
	Multiply By The Derating Factor		1.20							
	Minimum Battery AmpHours Required		**1.54**							

Command Shortcuts

Configure Circuits

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SILENT KNIGHT

Device Database

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Item#	Device / Description	Current Draw In Amperes Standby	*Alarm
1	Unused		
2	Gentex GCC24 Horn/Strobe (15cd)	0.0000	0.1430
3	Gentex GCC24 Horn/Strobe (30cd)	0.0000	0.1530
4	Gentex GCC24 Horn/Strobe (75cd)	0.0000	0.2700
5	Gentex GCC24 Horn/Strobe (95cd)	0.0000	0.3410
6	Gentex GCC24 Horn/Strobe (115cd)	0.0000	0.3830
7	Gentex GCC24 Horn/Strobe (150cd)	0.0000	0.4770
8	Gentex GCS24 Strobe (15cd)	0.0000	0.1200
9	Gentex GCS24 Strobe (30cd)	0.0000	0.1300
10	Gentex GCS24 Strobe (75cd)	0.0000	0.2470
11	Gentex GCS24 Strobe (95cd)	0.0000	0.3180
12	Gentex GCS24 Strobe (115cd)	0.0000	0.3600
13	Gentex GCS24 Strobe (150cd)	0.0000	0.4540
14	Gentex GEC324 Horn/Strobe (15cd)	0.0000	0.1340
15	Gentex GEC324 Horn/Strobe (30cd)	0.0000	0.1520
16	Gentex GEC324 Horn/Strobe (60cd)	0.0000	0.1930
17	Gentex GEC324 Horn/Strobe (75cd)	0.0000	0.2360
18	Gentex GEC324 Horn/Strobe (110cd)	0.0000	0.2800
19	Gentex GES324 Strobe (15cd)	0.0000	0.0780
20	Gentex GES324 Strobe (30cd)	0.0000	0.0960
21	Gentex GES324 Strobe (60cd)	0.0000	0.1370
22	Gentex GES324 Strobe (75cd)	0.0000	0.1800
23	Gentex GES324 Strobe (110cd)	0.0000	0.2240
24	Gentex GEC24 Horn/Strobe (15cd)	0.0000	0.1330
25	Gentex GEC24 Horn/Strobe (30cd)	0.0000	0.1510
26	Gentex GEC24 Horn/Strobe (60cd)	0.0000	0.1920
27	Gentex GEC24 Horn/Strobe (75cd)	0.0000	0.2350
28	Gentex GEC24 Horn/Strobe (110cd)	0.0000	0.2790
29	Gentex GEC24 Horn/Strobe (177cd)	0.0000	0.3430
30	Gentex GEH24 Horn	0.0000	0.0560
31	Gentex GES24 Strobe (15cd)	0.0000	0.0780
32	Gentex GES24 Strobe (30cd)	0.0000	0.0960
33	Gentex GES24 Strobe (60cd)	0.0000	0.1370
34	Gentex GES24 Strobe (75cd)	0.0000	0.1800
35	Gentex GES24 Strobe (110cd)	0.0000	0.2240
36	Gentex GES24 Strobe (177cd)	0.0000	0.2880
37	Gentex GX91 Mini-Horn (Continuous)	0.0000	0.0150
38	Gentex GX93 Mini-Horn (Temporal)	0.0000	0.0220
39	Gentex WGE Strobe (75cd)	0.0000	0.1800
40	Gentex WGEC Horn/Strobe (75cd)	0.0000	0.2360
41	Silent Knight end of line relay EOL-1224RLY	0.0150	0.0150
42	System Sensor CH Chime	0.0000	0.0540
43	System Sensor CHS Chime/Stobe (15cd)	0.0000	0.0700
44	System Sensor CHS Chime/Stobe (15/75cd)	0.0000	0.0810
45	System Sensor CHS Chime/Strobe (30cd)	0.0000	0.0990
46	System Sensor CHS Chime/Strobe (75cd)	0.0000	0.1650

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47	System Sensor CHS Chime/Strobe (95cd)	0.0000	0.1890
48	System Sensor CHS Chime/Strobe (110cd)	0.0000	0.2100
49	System Sensor CHS Chime/Strobe (115cd)	0.0000	0.2170
50	System Sensor HR/HRK/HW Horn	0.0000	0.0690
51	System Sensor MH Mini-Horn	0.0000	0.0290
52	System Sensor P2/PC2 Horn/Strobe (15cd)	0.0000	0.0910
53	System Sensor P2/PC2 Horn/Strobe (15/75cd	0.0000	0.1000
54	System Sensor P2/PC2 Horn/Strobe (30cd)	0.0000	0.1160
55	System Sensor P2/PC2 Horn/Strobe (75cd)	0.0000	0.1760
56	System Sensor P2/PC2 Horn/Strobe (95cd)	0.0000	0.2010
57	System Sensor P2/PC2 Horn/Strobe (110cd)	0.0000	0.2210
58	System Sensor P2/PC2 Horn/Strobe (115cd)	0.0000	0.2290
59	System Sensor P2/PC2 Horn/Strobe (135cd)	0.0000	0.2550
60	System Sensor P2/PC2 Horn/Strobe (150cd)	0.0000	0.2700
61	System Sensor P2/PC2 Horn/Strobe (177cd)	0.0000	0.3020
62	System Sensor P2/PC2 Horn/Strobe (185cd)	0.0000	0.3090
63	System Sensor S/SC Strobe (15cd)	0.0000	0.0660
64	System Sensor S/SC Strobe (15/75cd)	0.0000	0.0770
65	System Sensor S/SC Strobe (30cd)	0.0000	0.0940
66	System Sensor S/SC Strobe (75cd)	0.0000	0.1580
67	System Sensor S/SC Strobe (95cd)	0.0000	0.1810
68	System Sensor S/SC Strobe (110cd)	0.0000	0.2020
69	System Sensor S/SC Strobe (115cd)	0.0000	0.2100
70	System Sensor S/SC Strobe (135cd)	0.0000	0.2280
71	System Sensor S/SC Strobe (150cd)	0.0000	0.2460
72	System Sensor S/SC Strobe (177cd)	0.0000	0.2810
73	System Sensor S/SC Strobe (185cd)	0.0000	0.2860
74	System Sensor H-LF Low Freq. Sounder	0.0000	0.1530
75	System Sensor P2H-LF Sounder/Strobe (135c	0.0000	0.3370
76	System Sensor P2H-LF Sounder/Strobe (150c	0.0000	0.3620
77	System Sensor P2H-LF Sounder/Strobe (177c	0.0000	0.3870
78	System Sensor P2H-LF Sounder/Strobe (185c	0.0000	0.4170
79	Wheelock AH24 Horn	0.0000	0.0800
80	Wheelock AS241575 Horn/Strobe (1575cd)	0.0000	0.2010
81	Wheelock AS24MCW Horn/Strobe (15cd)	0.0000	0.1680
82	Wheelock AS24MCW Horn/Strobe (30cd)	0.0000	0.2050
83	Wheelock AS24MCW Horn/Strobe (75cd)	0.0000	0.2800
84	Wheelock AS24MCW Horn/Strobe (110cd)	0.0000	0.3470
85	Wheelock AS24MCWH Horn/Strobe (135cd)	0.0000	0.4350
86	Wheelock AS24MCWH Horn/Strobe (185cd)	0.0000	0.5600
87	Wheelock AS24MCC Horn/Strobe (15cd)	0.0000	0.1750
88	Wheelock AS24MCC Horn/Strobe (30cd)	0.0000	0.2180
89	Wheelock AS24MCC Horn/Strobe (75cd)	0.0000	0.3010
90	Wheelock AS24MCC Horn/Strobe (95cd)	0.0000	0.3650
91	Wheelock AS24MCCH Horn/Strobe (115cd)	0.0000	0.4350
92	Wheelock AS24MCCH Horn/Strobe (177cd)	0.0000	0.5600

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Item#	Device / Description	Current Draw In Amperes Standby	*Alarm
93	Wheelock CH70 Chime	0.0000	0.0220
94	Wheelock CH70241575 Chime/Strobe (1575c	0.0000	0.1120
95	Wheelock CH7024MCW Chime/Strobe (15cd	0.0000	0.0820
96	Wheelock CH7024MCW Chime/Strobe (30cd	0.0000	0.1140
97	Wheelock CH7024MCW Chime/Strobe (75cd	0.0000	0.1870
98	Wheelock CH7024MCW Chime/Strobe (110c	0.0000	0.2420
99	Wheelock CH7024MCWH Chime/Strobe (135	0.0000	0.3220
100	Wheelock CH7024MCWH Chime/Strobe (185	0.0000	0.4420
101	Wheelock CH90 Chime	0.0000	0.0220
102	Wheelock CH9024MCC Chime/Strobe (15cd)	0.0000	0.0870
103	Wheelock CH9024MCC Chime/Strobe (30cd)	0.0000	0.1270
104	Wheelock CH9024MCC Chime/Strobe (75cd)	0.0000	0.2110
105	Wheelock CH9024MCC Chime/Strobe (95cd)	0.0000	0.2710
106	Wheelock CH9024MCCH Chime/Strobe (115	0.0000	0.3220
107	Wheelock CH9024MCCH Chime/Strobe (177	0.0000	0.4420
108	Wheelock HS24 Horn	0.0000	0.1100
109	Wheelock HS24MCC Horn/Strobe (15cd)	0.0000	0.1750
110	Wheelock HS24MCC Horn/Strobe (30cd)	0.0000	0.2150
111	Wheelock HS24MCC Horn/Strobe (75cd)	0.0000	0.2990
112	Wheelock HS24MCC Horn/Strobe (95cd)	0.0000	0.3590
113	Wheelock HS24MCCH Horn/Strobe (115cd)	0.0000	0.4100
114	Wheelock HS24MCCH Horn/Strobe (177cd)	0.0000	0.5300
115	Wheelock HS4241575W Horn/Strobe (1575c	0.0000	0.2000
116	Wheelock HS424MCW Horn/Strobe (15cd)	0.0000	0.1700
117	Wheelock HS424MCW Horn/Strobe (30cd)	0.0000	0.2020
118	Wheelock HS424MCW Horn/Strobe (75cd)	0.0000	0.2750
119	Wheelock HS424MCW Horn/Strobe (110cd)	0.0000	0.3300
120	Wheelock HS424MCWH Horn/Strobe (135cd)	0.0000	0.4100
121	Wheelock HS424MCWH Horn/Strobe (185cd)	0.0000	0.5300
122	Wheelock MT24 Multitone Appliance	0.0000	0.1420
123	Wheelock MT241575 Multitone/Strobe (1575c	0.0000	0.2320
124	Wheelock MTWP2475 Multitone/Strobe (180c	0.0000	0.2800
125	Wheelock MT24MCW Multitone/Strobe (15cd	0.0000	0.2020
126	Wheelock MT24MCW Multitone/Strobe (30cd	0.0000	0.2340
127	Wheelock MT24MCW Multitone/Strobe (75cd	0.0000	0.3070
128	Wheelock MT24MCW Multitone/Strobe (110c	0.0000	0.3620
129	Wheelock NH24 Horn	0.0000	0.0440
130	Wheelock NS241575W Horn/Strobe (1575cd)	0.0000	0.1480
131	Wheelock NS24MCW Horn/Strobe (15cd)	0.0000	0.1180
132	Wheelock NS24MCW Horn/Strobe (30cd)	0.0000	0.1510
133	Wheelock NS24MCW Horn/Strobe (75cd)	0.0000	0.2280
134	Wheelock NS24MCW Horn/Strobe (110cd)	0.0000	0.2880
135	Wheelock NS24MCC Horn/Strobe (15cd)	0.0000	0.1260
136	Wheelock NS24MCC Horn/Strobe (30cd)	0.0000	0.1680
137	Wheelock NS24MCC Horn/Strobe (75cd)	0.0000	0.2530
138	Wheelock NS24MCC Horn/Strobe (95cd)	0.0000	0.3190

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Item#	Device / Description	Current Draw In Amperes Standby	*Alarm
139	Wheelock NS24MCCH Horn/Strobe (115cd)	0.0000	0.3940
140	Wheelock NS24MCCH Horn/Strobe (177cd)	0.0000	0.5210
141	Wheelock RSS/RSSP241575W Strobe (1575	0.0000	0.0900
142	Wheelock RSS/RSSP24MCW Strobe (15cd)	0.0000	0.0600
143	Wheelock RSS/RSSP24MCW Strobe (30cd)	0.0000	0.0920
144	Wheelock RSS/RSSP24MCW Strobe (75cd)	0.0000	0.1650
145	Wheelock RSS/RSSP24MCW Strobe (110cd)	0.0000	0.2200
146	Wheelock RSS/RSSP24MCWH Strobe (135c	0.0000	0.3000
147	Wheelock RSS/RSSP24MCWH Strobe (185c	0.0000	0.4200
148	Wheelock RSS/RSSP24MCC Strobe (15cd)	0.0000	0.0650
149	Wheelock RSS/RSSP24MCC Strobe (30cd)	0.0000	0.1050
150	Wheelock RSS/RSSP24MCC Strobe (75cd)	0.0000	0.1890
151	Wheelock RSS/RSSP24MCC Strobe (95cd)	0.0000	0.2490
152	Wheelock RSS/RSSP24MCCH Strobe (115cc	0.0000	0.3000
153	Wheelock RSS/RSSP24MCCH Strobe (177cc	0.0000	0.4200
154	Silent Knight SK-Control NAC Module	0.0017	0.0070
155	Silent Knight B200S Sounder Base	0.0005	0.0350
156	Silent Knight SK-Zone Two Wire Det Mod	0.0120	0.0900
157	Silent Knight B200S-LF Low Freq Sound Base	0.0005	0.1400
158	User Defined		
159	User Defined		
160	User Defined		
161	User Defined		
162	User Defined		

SILENT KNIGHT

Circuit Configuration

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Project Information

Project Name: Portland High School **Project ID:** 0

Prepared By: Kevin Inman **Date:** 6/28/2

Ckt. Number: PGM-I/O #1 Panel ID: 5895XL

Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
0	System Sensor P2/PC2 Horn/Strobe (15cd)	0.000	0.091	0.000	0.000
0	System Sensor P2/PC2 Horn/Strobe (30cd)	0.000	0.116	0.000	0.000
0	System Sensor P2/PC2 Horn/Strobe (75cd)	0.000	0.176	0.000	0.000
0	System Sensor P2/PC2 Horn/Strobe (110cd)	0.000	0.221	0.000	0.000
				0.000	0.000
			Totals	0.000	0.000

Ckt. Number: PGM-I/O #2 Panel ID: 5895XL

Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
2	System Sensor P2/PC2 Horn/Strobe (15cd)	0.000	0.091	0.000	0.182
2	System Sensor P2/PC2 Horn/Strobe (30cd)	0.000	0.116	0.000	0.232
4	System Sensor P2/PC2 Horn/Strobe (75cd)	0.000	0.176	0.000	0.704
1	System Sensor S/SC Strobe (15cd)	0.000	0.066	0.000	0.066
				0.000	0.000
			Totals	0.000	1.184

Ckt. Number: PGM-I/O #3 Panel ID: 5895XL

Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
0	System Sensor S/SC Strobe (15cd)	0.000	0.066	0.000	0.000
4	System Sensor P2/PC2 Horn/Strobe (15cd)	0.000	0.091	0.000	0.364
1	System Sensor P2/PC2 Horn/Strobe (30cd)	0.000	0.116	0.000	0.116
3	System Sensor P2/PC2 Horn/Strobe (75cd)	0.000	0.176	0.000	0.528
				0.000	0.000
			Totals	0.000	1.008

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Circuit Configuration

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Project Information

Project Name: Portland High School **Project ID:** 0

Prepared By: Kevin Inman **Date:** 6/28/2

Ckt. Number: PGM-I/O #4 Panel ID: 5895XL
Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
2	System Sensor P2/PC2 Horn/Strobe (30cd)	0.000	0.116	0.000	0.232
2	System Sensor P2/PC2 Horn/Strobe (15cd)	0.000	0.091	0.000	0.182
2	System Sensor P2/PC2 Horn/Strobe (75cd)	0.000	0.176	0.000	0.352
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.766

Ckt. Number: PGM-I/O #5 Panel ID: 5895XL
Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
4	System Sensor S/SC Strobe (15cd)	0.000	0.066	0.000	0.264
6	System Sensor P2/PC2 Horn/Strobe (15cd)	0.000	0.091	0.000	0.546
0	System Sensor P2/PC2 Horn/Strobe (30cd)	0.000	0.116	0.000	0.000
0	System Sensor P2/PC2 Horn/Strobe (110cd)	0.000	0.221	0.000	0.000
				0.000	0.000
			Totals	0.000	0.810

Ckt. Number: PGM-I/O #6 Panel ID: 5895XL
Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
0	System Sensor P2/PC2 Horn/Strobe (30cd)	0.000	0.116	0.000	0.000
0	System Sensor P2/PC2 Horn/Strobe (75cd)	0.000	0.176	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.000