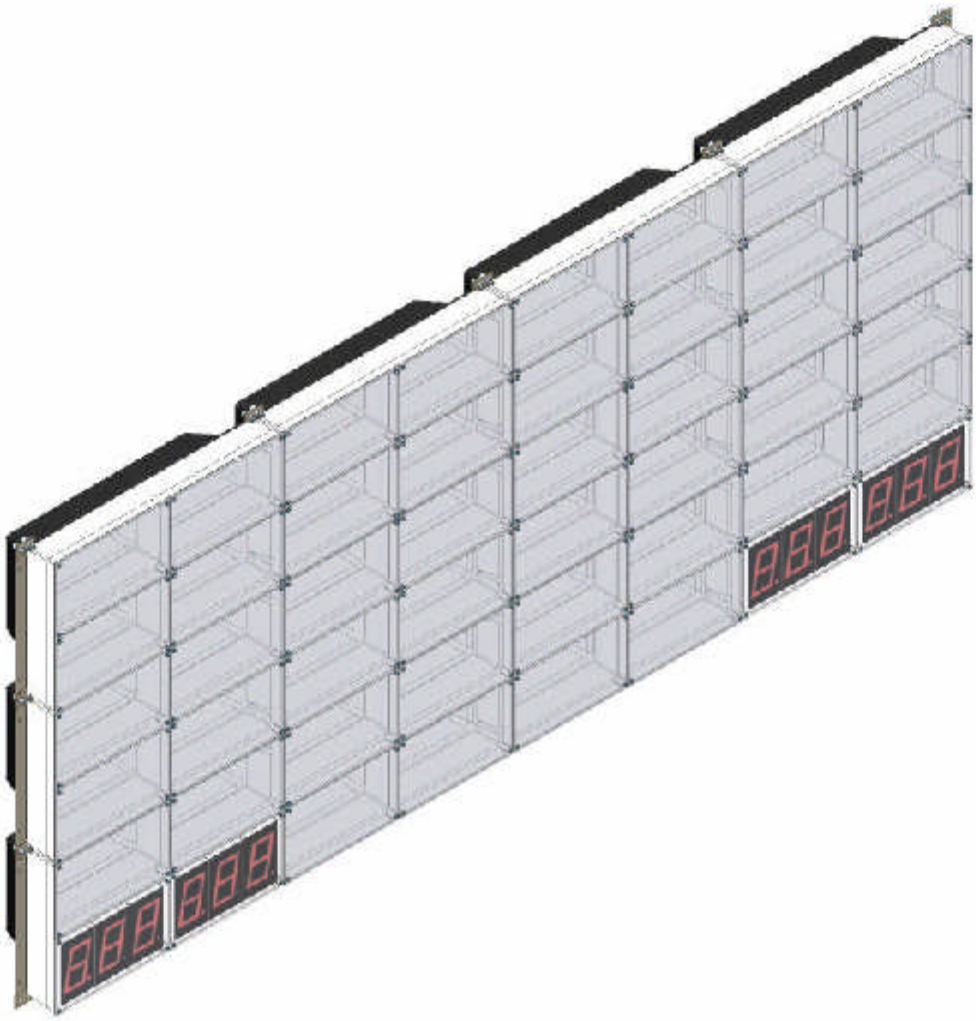
SCALABLE ANDON DISPLAY BOARD



USER MANUAL

CONTENTS

Introduction

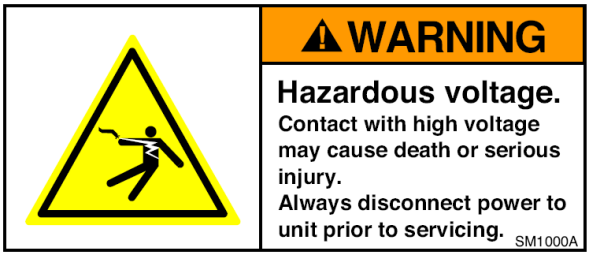
Purpose

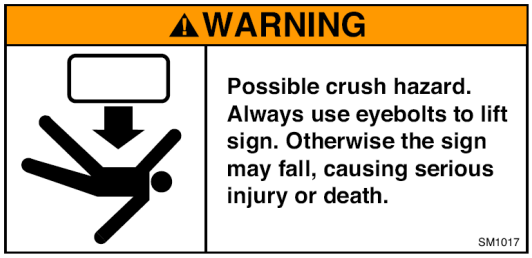
This manual is intended as a guide for installation and setup of the sign, as well as for routine maintenance.

Revision History

Date	Notes
	Initial Release

Warnings



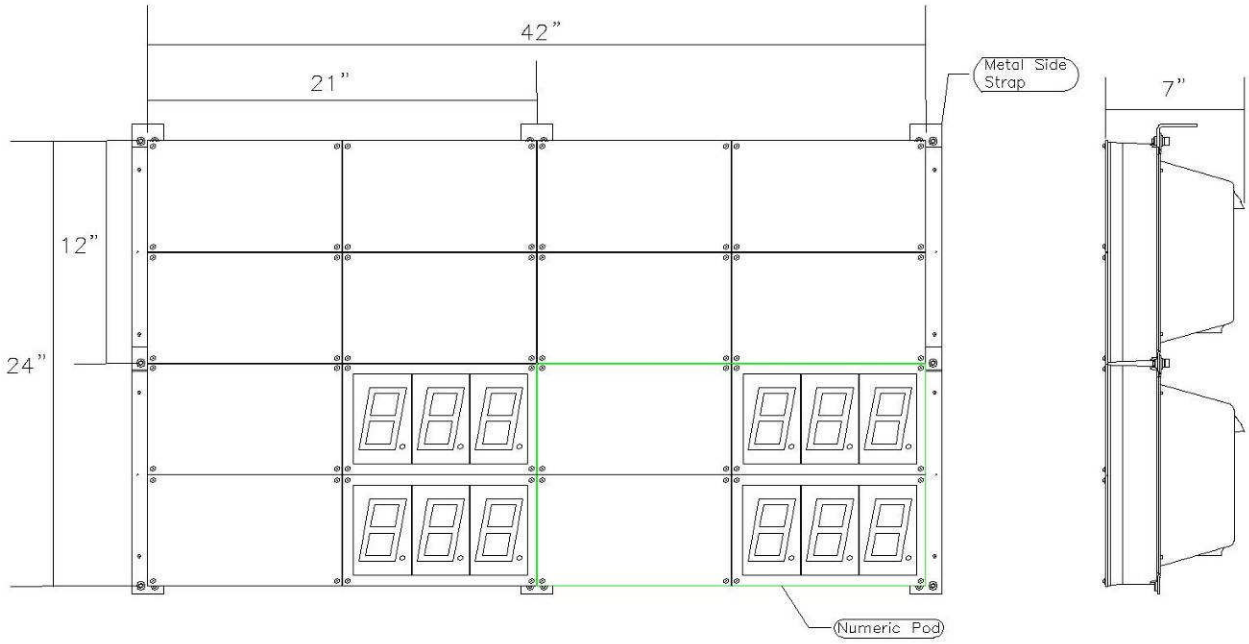


- Disconnect all power from the sign at the power source to prevent electrical injury or damage.

Mechanical Installation

Overview

- Board Dimensions:



Approximate above configuration weight: 26 lbs (6.5 lbs per module)

When assembling the 977 product you will need additional components to complete the build of your Andon board. The standard part numbers for the 977 system are listed below:
977-2x2 - 4 Backlit cells
977-2x2-802 - 2 Backlit cells with 2 numerical displays
977-PS-40 - Power supply and communication enclosure
977-TW - Tie-wrap cable straps and fasteners (the configuration above would require a minimum of 4)
28801 - Rubber end caps for bottom straps (the configuration above would require 3)
S970S2X2MOD - Right angle mounting hardware for top straps (the configuration above would require 3)
970-S-2x2-MOD - Additional strap for right side of Andon board per row (the configuration above would require 2)

Tools required for Assembly

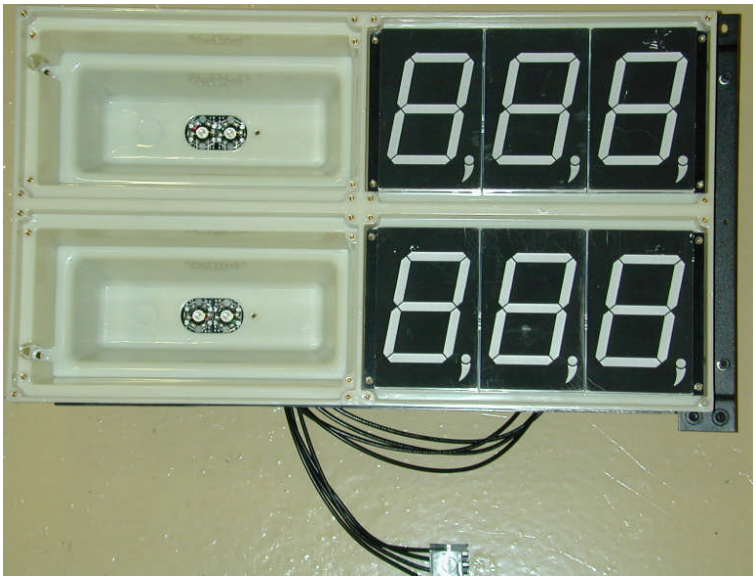
1 – 2mm allen wrench for M3 bolt
1 – 3mm allen wrench for M4 bolt
1 – 5mm allen wrench for M6 bolt

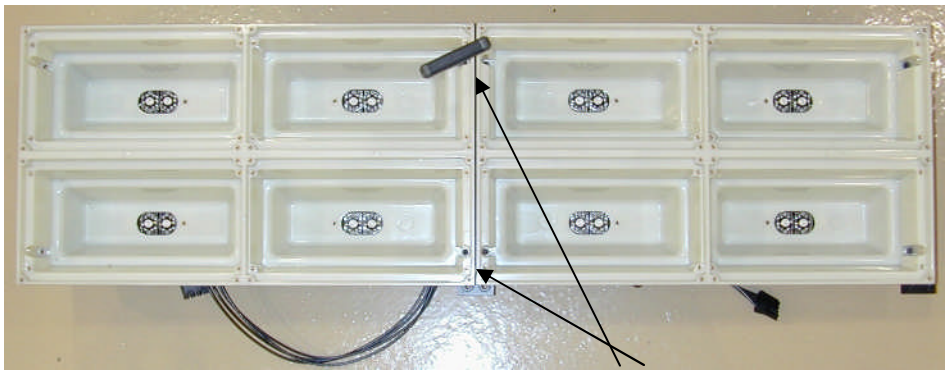
Andon Board Assembly Procedure

The Andon board is built using an array of 977 modules. The board must be built a row at a time from right to left (looking at front) including the end strap. After your rows are completed you will fasten the rows together starting from top to bottom. Listed below is a step by step procedure for building a 2 module wide by 2 module high Andon board. All other configuration should follow this similar process.

1. 977-2x2 – Shown as unit will appear out of the shipping container.

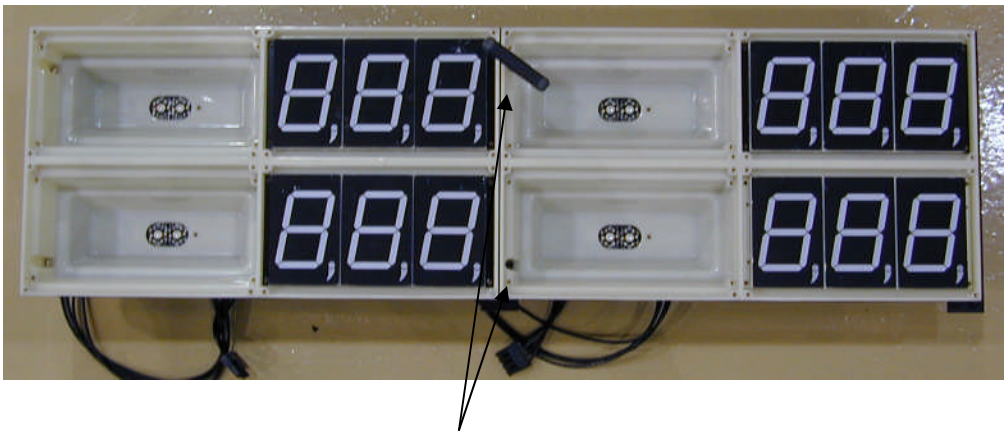
2. 977-2x2-802 – Shown as unit will appear out of the shipping container.



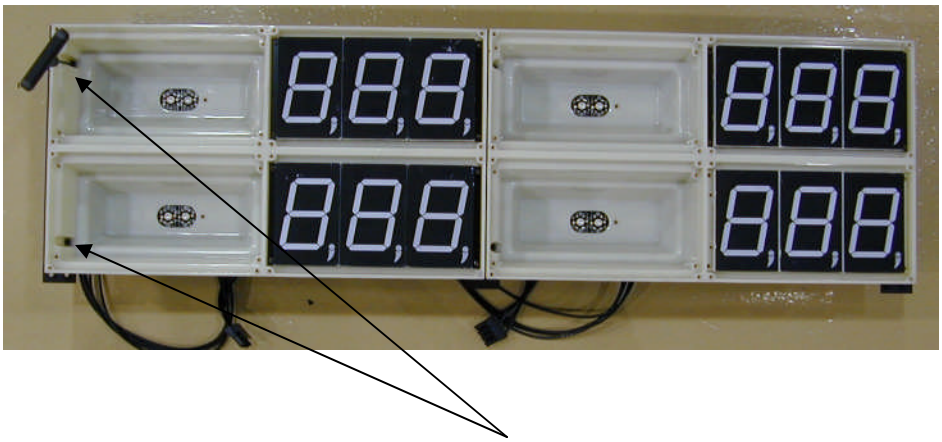


3. Assemble Row 1 – Use (2) M4 bolts and washers supplied in bracket to attach module 2's bracket to holes in module 1.

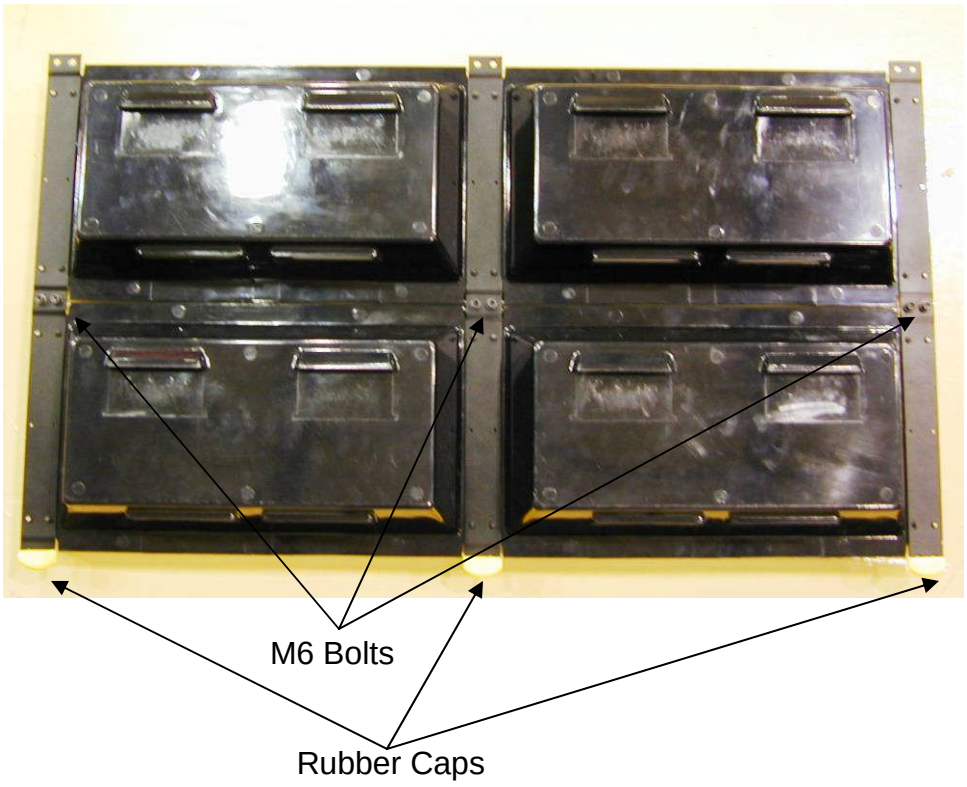
4. Row 1 End Strap – Attach end strap (PN: 970-S-2x2-MOD) to last module in row with (2) M4 bolts and washers.



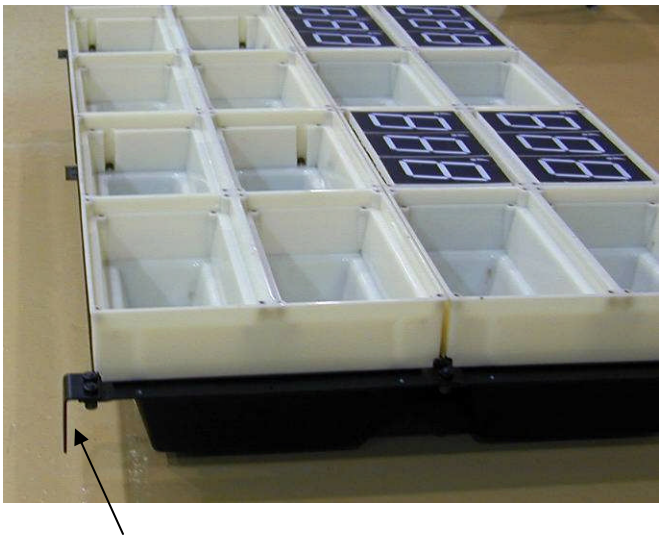
5. Assemble Row 2 – Use (2) M4 bolts and washers supplied in bracket to attach module 2's bracket to holes in module 1.



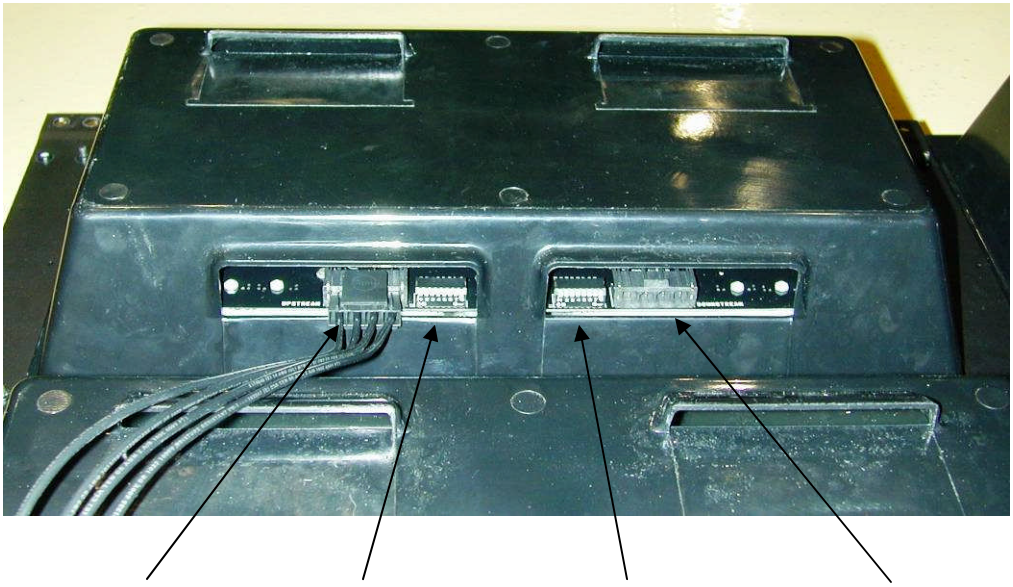
6. Row 2 End Strap - Use (2) M4 bolts and washers supplied in end strap (PN: 970-S-2x2-MOD) to attach to left most end of Andon board.



7. Attach Row1 to Row 2 & Rubber Protector Caps – With assembly on its face install (2) M6 bolts per strap. Also install rubber end caps (PN: 28801) on bottom straps as shown.



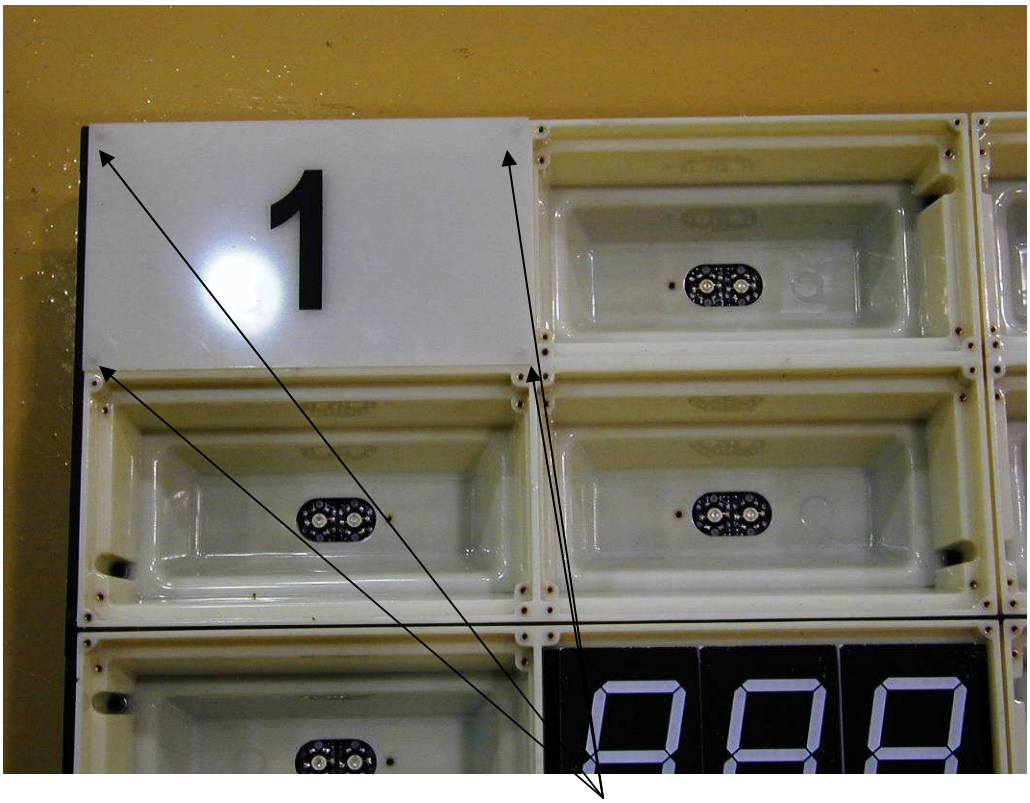
8. Hanger Brackets – Install hanging brackets on top straps as shown using (2) M6 bolts supplied in bracket.



9. Cable Connection & Dip Switch Setting- Install cable harnesses per layout, and set group and unit dipswitches. Use tie-wraps (PN: 977-TW) to dress wire harnesses after Andon board is completed.

Group and Unit Dip Switch Settings (Binary)

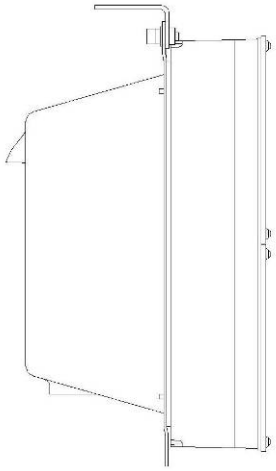
“S1” Group #	“S2” Unit #	
1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	
0 0 0 0 0 0 0 1	0 0 0 0 0 0 0 1	Group 1, Unit 1
0 0 0 0 0 0 0 1	0 0 0 0 0 0 1 0	Group 1, Unit 2
0 0 0 0 0 0 0 1	0 0 0 0 0 0 1 1	Group 1, Unit 3
0 0 0 0 0 0 0 1	0 0 0 0 0 1 0 0	Group 1, Unit 4



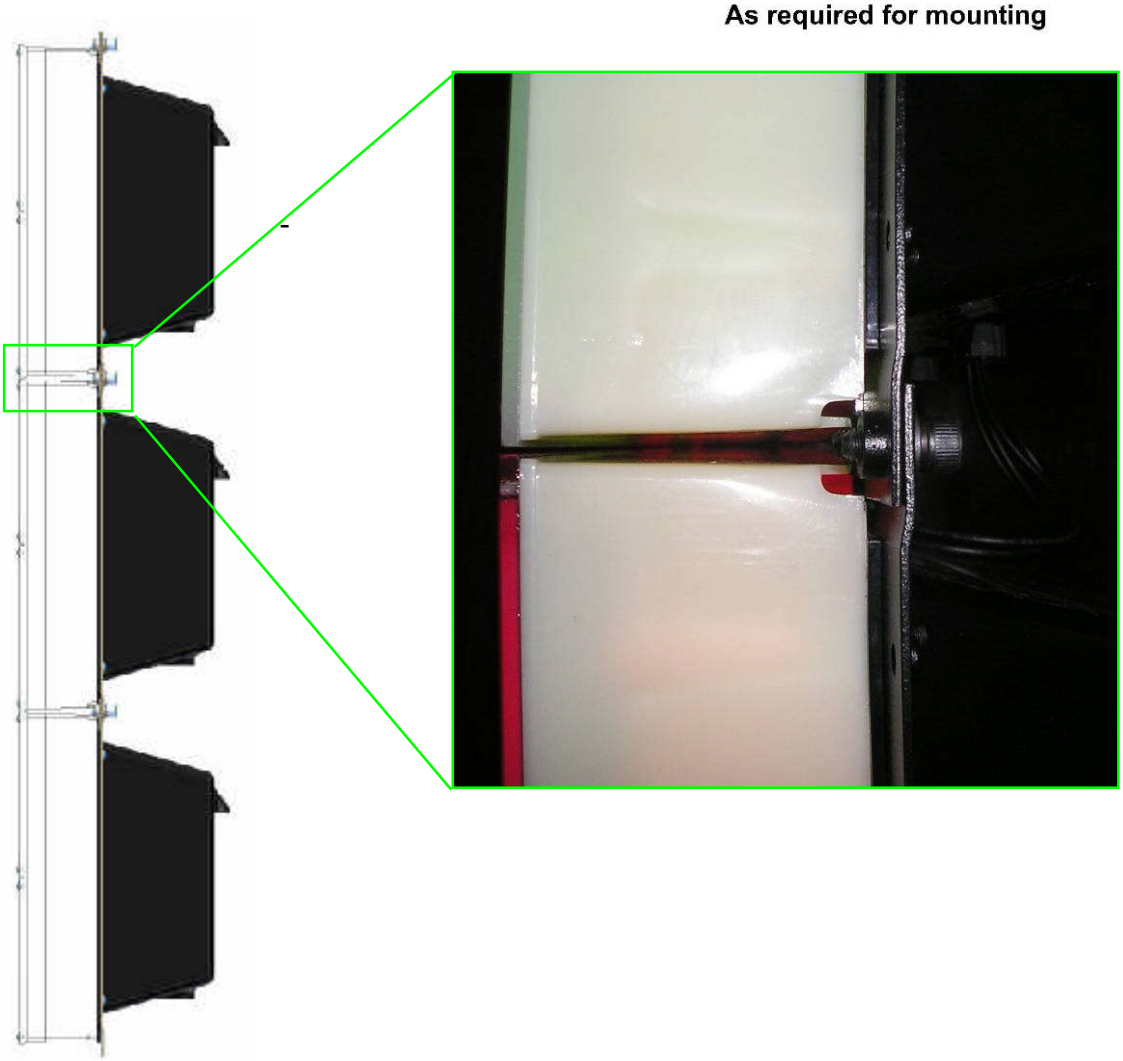
10. Lens Installation – Install lenses with push pins or screws.

Display Board Assembly

- If board is over 3 rows, stiffeners are necessary for right and left edge of board.
- For GME and GMAP plants: Some assembly is required.
    - Overlay side metal straps and securely fasten, using approved bolts, flat, and lock washers.
    - Hanging brackets will be shipped unattached to the board. Fasten hanging bracket to outer top straps of board.

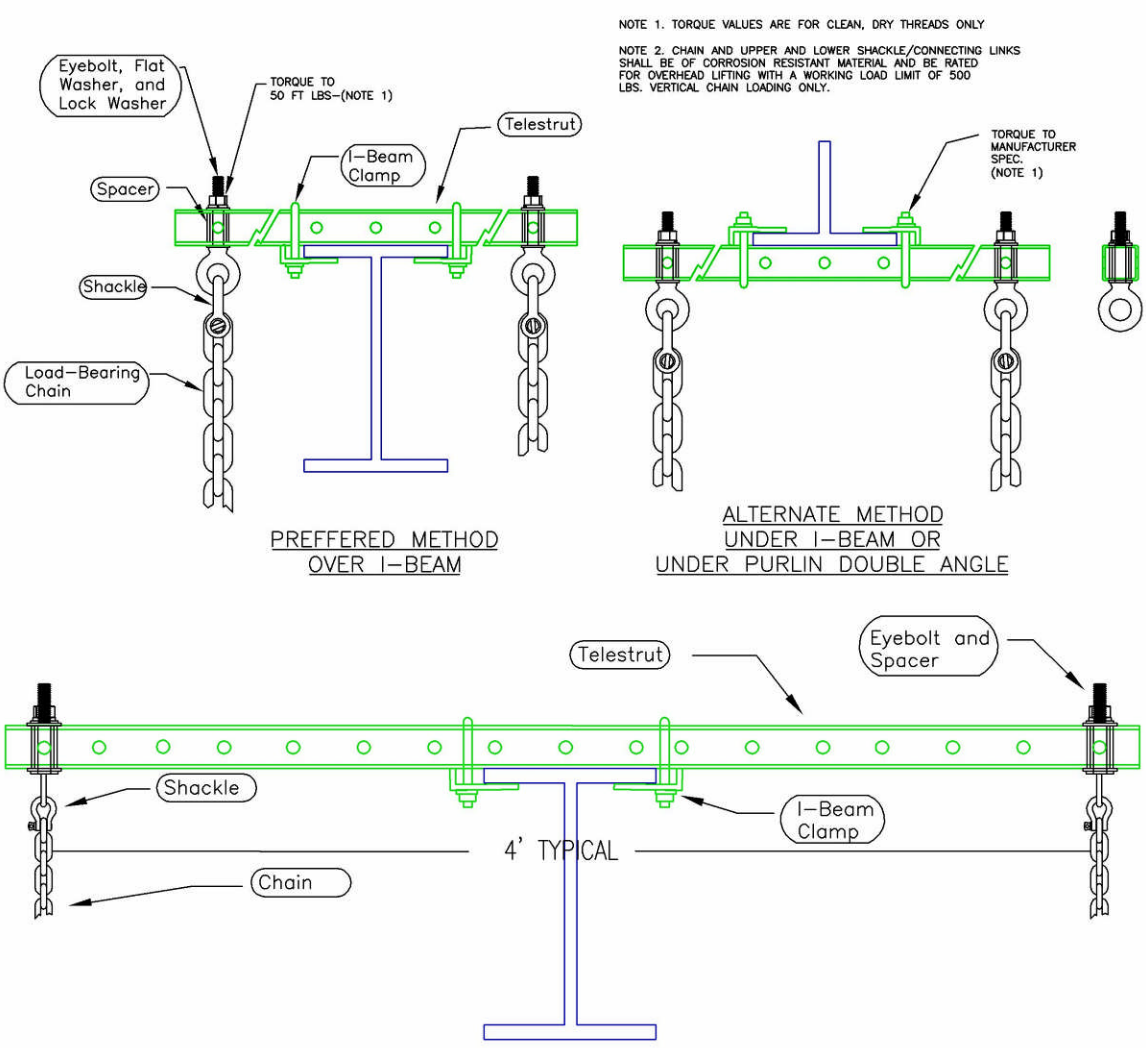


As required for mounting



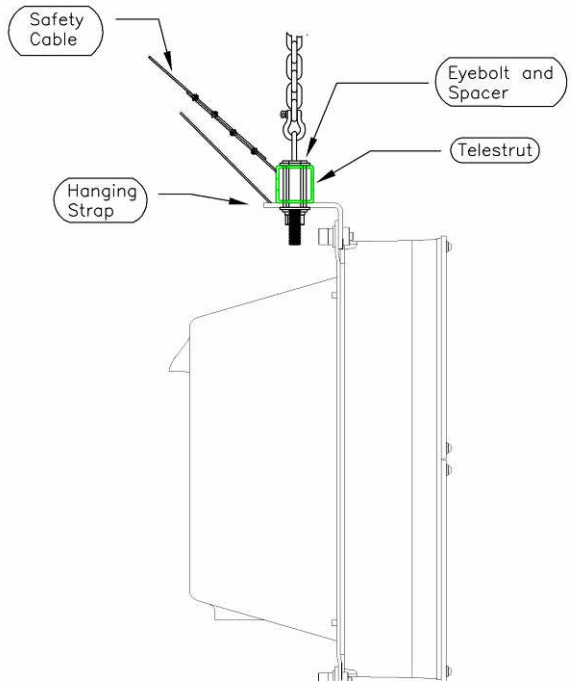
Beam Mounting

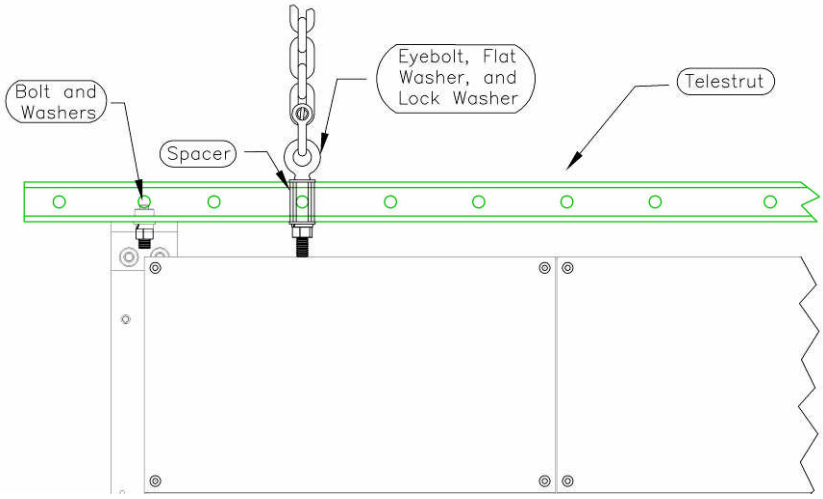
Attach eyebolts to telestrut and telestrut to I-Beam.



Display Board Mounting

- Attach eyebolt and washers to telestrut, then attach telestrut to hanging straps using hex socket bolt.
- Do not mount directly underneath light source.
- Always lift using both eyebolts.



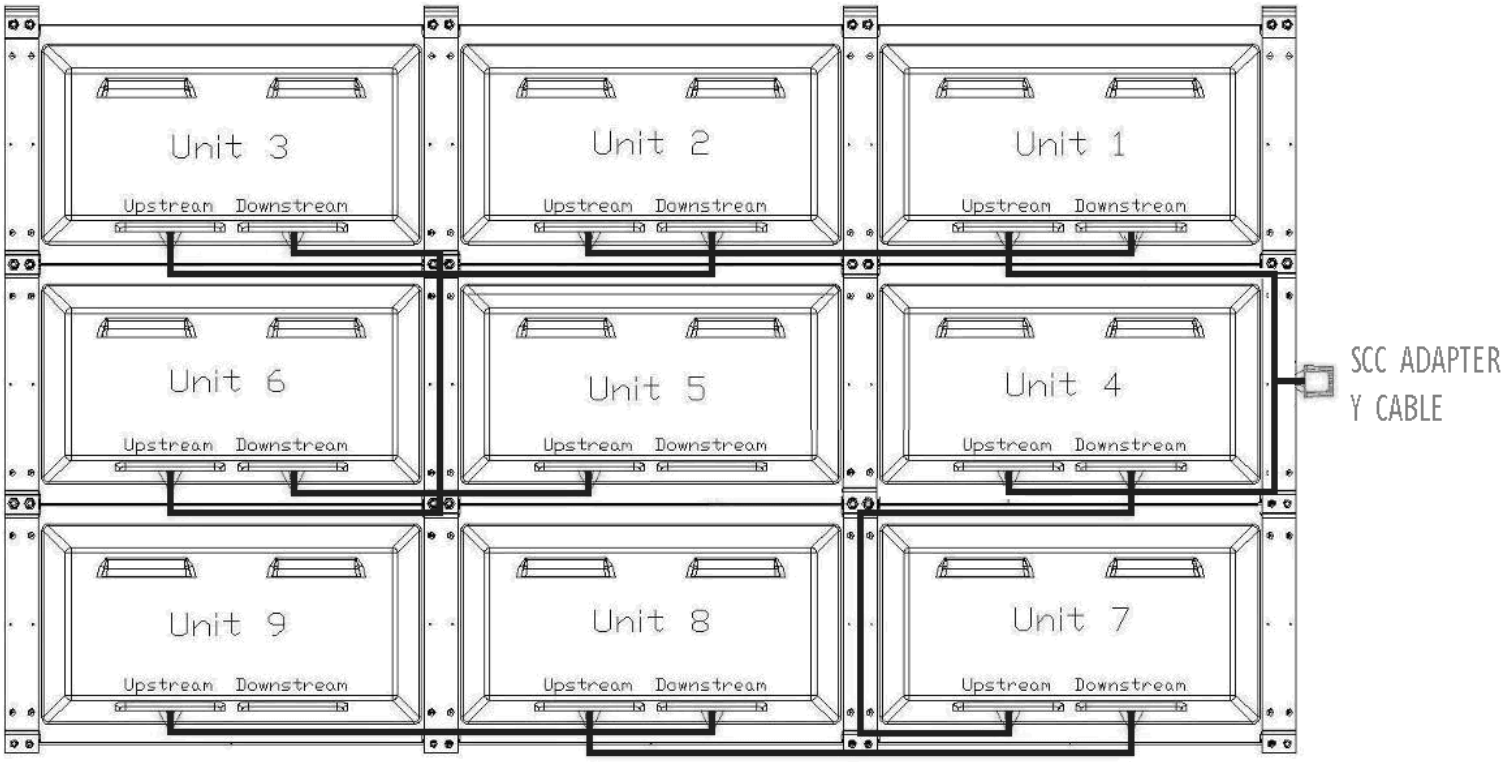


Electrical Installation

Daisy Chain

For GME and GMAP plants: All pods need to be wired similar to the diagram shown below:

To reduce voltage drop across a number of pods in series it is suggested to use the SCC adapter Y cable to split the power on each side of the Andon board. The pods can be wired in any configuration with keeping the following rule: the input cable or Y cable is connected to the upstream port and the downstream to the upstream of the adjacent unit and so on.

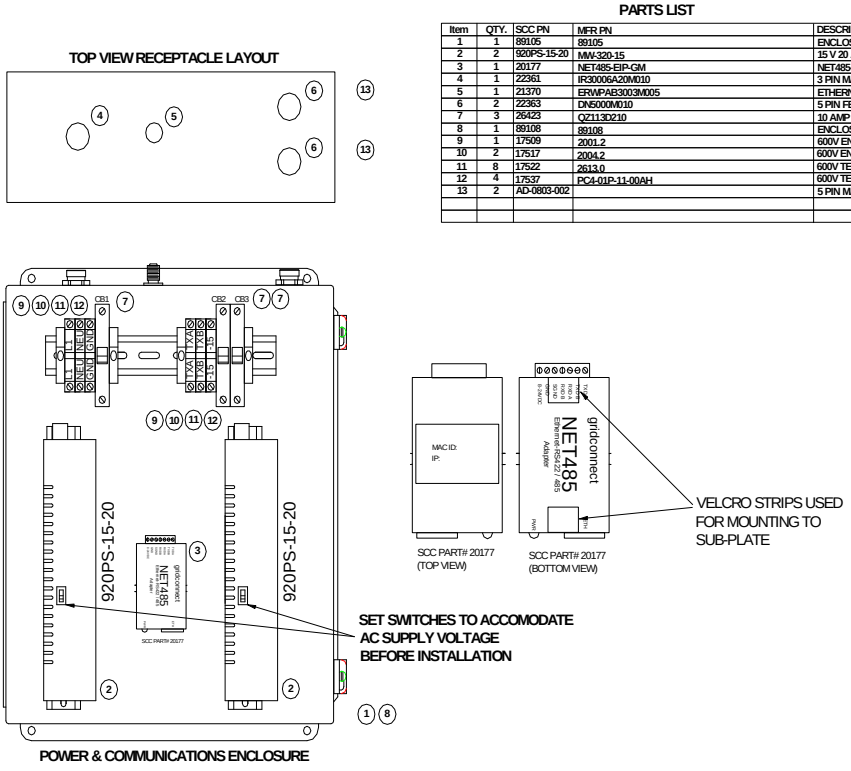


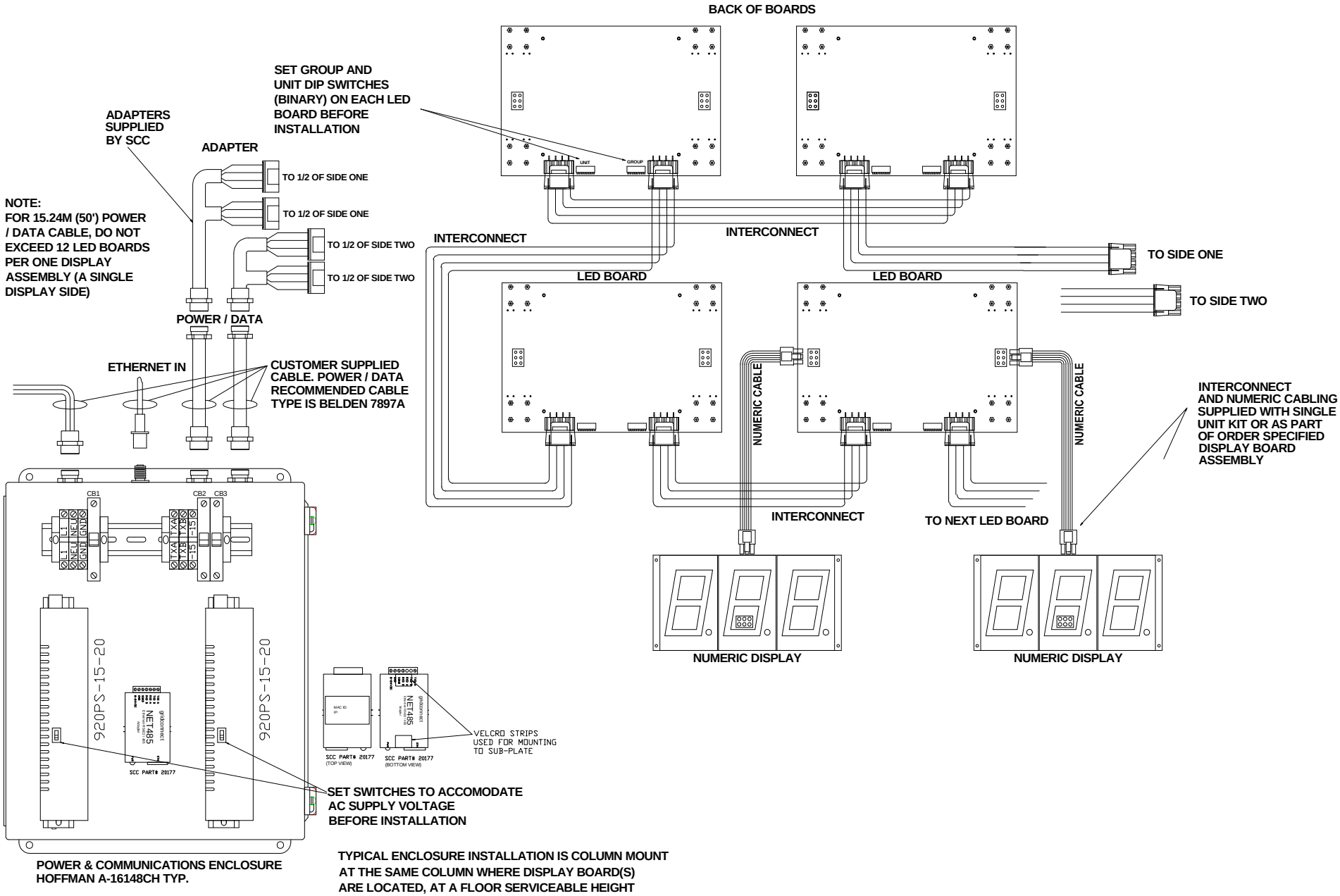
Control Box

The control box is design to power a double sided Andon board with a maximum of 12 modules per side. The power/data cables should not exceed 50’ in length. This cable will plug into the SCC adapter Y cable which should be connected to equal amount of pods. Required connections from plant are 120/230 VAC (switch on PS must be selected), and Ethernet.

PARTS LIST

Item	QTY.	SCC PN	MFR PN	DESCRIPTION
1	1	89105	89105	ENCLOSURE (HOFFMAN A-16148CH)
2	2	920PS-15-20	MW-320-15	15 V 20 AMP POWER SUPPLY
3	1	20177	NET485-EIP-GM	NET485-EIP-GM ETHERNET MODULE
4	1	22361	IR30006A20M010	3 PIN MALE POWER RECEPTACLE
5	1	21370	ERWPAB3003M005	ETHERNET RECEPTACLE
6	2	22363	DN5000M010	5 PIN FEMALE RECEPTACLE
7	3	26423	QZ113D210	10 AMP RAIL MOUNT CIRCUIT BREAKER
8	1	89108	89108	ENCLOSURE SUBPLATE
9	1	17509	2001.2	600V END BARRIER
10	2	17517	2004.2	600V END ANCHOR
11	8	17522	2613.0	600V TERMINAL TAG
12	4	17537	PC4-01P-11-00AH	600V TERMINAL
13	2	AD-0803-002		5 PIN MALE ADAPTER Y CABLE

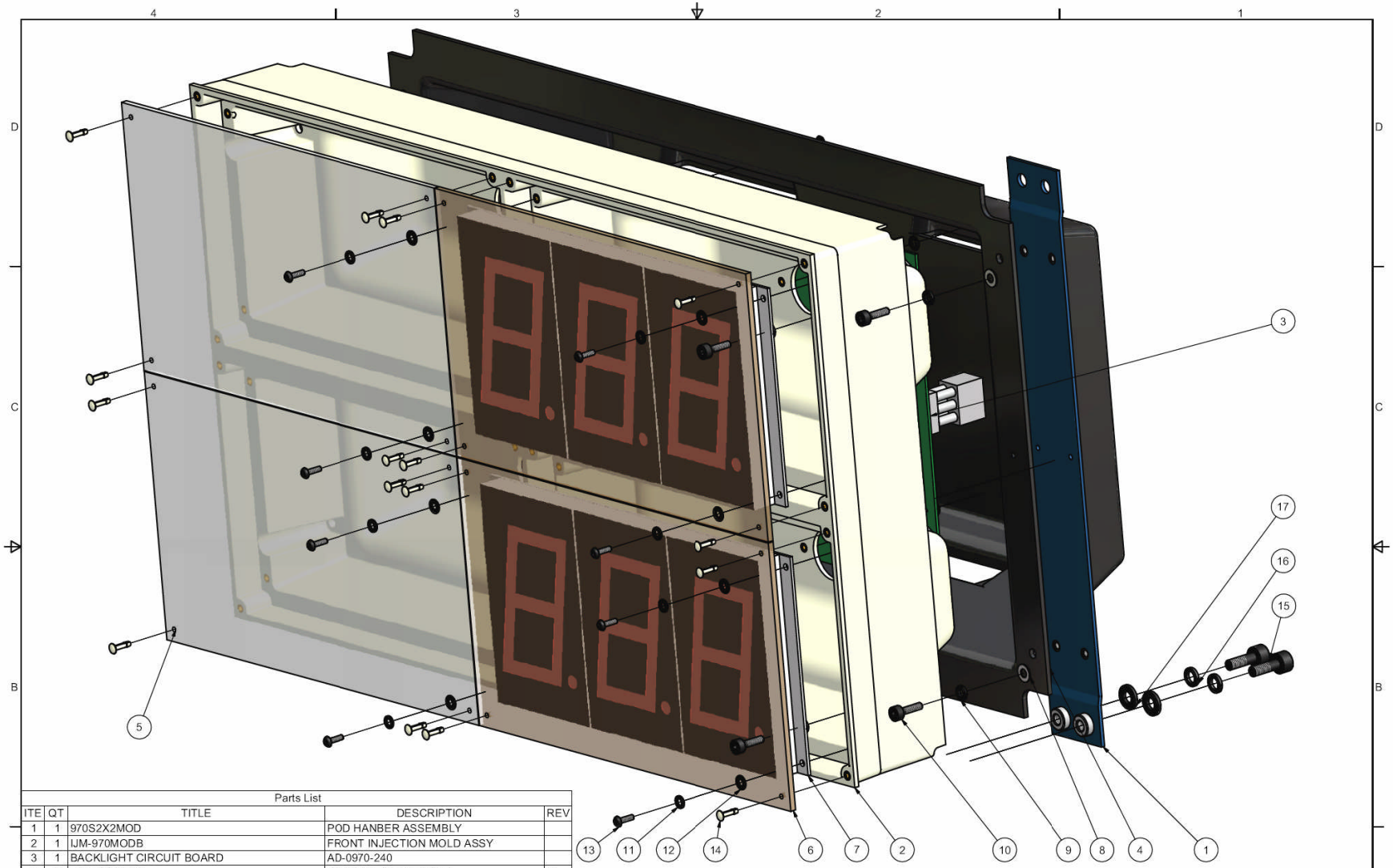



BACK OF BOARDS
SET GROUP AND UNIT DIP SWITCHES (BINARY) ON EACH LED BOARD BEFORE INSTALLATION
ADAPTERS SUPPLIED BY SCC
ADAPTER
TO 1/2 OF SIDE ONE
TO 1/2 OF SIDE ONE
TO 1/2 OF SIDE TWO
TO 1/2 OF SIDE TWO
NOTE:
FOR 15.24M (50') POWER / DATA CABLE, DO NOT EXCEED 12 LED BOARDS PER ONE DISPLAY ASSEMBLY (A SINGLE DISPLAY SIDE)
INTERCONNECT
INTERCONNECT
TO SIDE ONE
LED BOARD
LED BOARD
TO SIDE TWO
POWER / DATA
ETHERNET IN
CUSTOMER SUPPLIED CABLE. POWER / DATA RECOMMENDED CABLE TYPE IS BELDEN 7897A
NUMERIC CABLE
NUMERIC CABLE
INTERCONNECT AND NUMERIC CABLING SUPPLIED WITH SINGLE UNIT KIT OR AS PART OF ORDER SPECIFIED DISPLAY BOARD ASSEMBLY
INTERCONNECT
TO NEXT LED BOARD
NUMERIC DISPLAY
NUMERIC DISPLAY
CB1
CB2
CB3
L1
NEU
GND
TXA
TXB
-15
920PS-15-20
920PS-15-20
NET485
SCC PART# 20177
SCC PART# 20177
(TOP VIEW)
SCC PART# 20177
(BOTTOM VIEW)
VELCRO STRIPS USED FOR MOUNTING TO SUB-PLATE
SET SWITCHES TO ACCOMODATE AC SUPPLY VOLTAGE BEFORE INSTALLATION
POWER & COMMUNICATIONS ENCLOSURE HOFFMAN A-16148CH TYP.
TYPICAL ENCLOSURE INSTALLATION IS COLUMN MOUNT AT THE SAME COLUMN WHERE DISPLAY BOARD(S) ARE LOCATED, AT A FLOOR SERVICEABLE HEIGHT

Troubleshooting and Maintenance

Problem and solution chart

Problem	Recommended solution
Sign does not power up.	Check for 120 VAC. Check that circuit breakers are turned on. Check cable connections. Check DC power supplies are putting out correct 15 VDC.
Sign does not respond to commands.	Verify communication is getting to the sign. Check cable connections. Check group and unit addresses on the 977 circuit boards.
LED cells do not respond to commands after a certain point on the Andon board.	Check cable connection between last working 977 LED board and non-working 977 LED board. Check group and unit addresses.
Front side of Andon board does not respond the same as the back side.	Check group and unit address to make sure they are the same.
Numerical display is not responding.	Check group and unit address. Check cable connection between LED boards and between LED board and numerical display. Replace Numerical display. Replace LED board.
One or more LEDs are not working on Andon board.	Verify code being sent is correct. Check Group and Unit address in correct. Replace LED board.



Parts List				
ITE	QT	TITLE	DESCRIPTION	REV
1	1	970S2X2MOD	POD HANBER ASSEMBLY	
2	1	IJM-970MODB	FRONT INJECTION MOLD ASSY	
3	1	BACKLIGHT CIRCUIT BOARD	AD-0970-240	
4	1	IJM-907MODA	BACK INJECTION MOLD	IR
5	2	WHITE TRANSLUCENT LENS	PL-QUAD-POD MW	
6	2	BRONXE TRANSLUCENT LENS	PL-QUAD-POD-BZ	
7	2	3in DISPLAY BOARD	AD-0803-003	
8	4	WASHER FLAT 4mm	SCC PART#	
9	4	WASHER LOCK HIGH COLLAR 4mm	SCC PART#	
10	4	SCREW SHCS M4X0.7-16	SCC PART#	
11	12	WASHER LOCK HIGH COLLAR 3mm	SCC PART#	
12	12	WASHER FLAT 3mm	SCC PART#	
13	12	SCREW BUTTON HEAD M3 X0.5 -10mm	SCC PART#	
14	16	27PIF0115USH PIN	PUSH PIN# 27PIF0115	IR
15	2	SCREW SHCS M6X16	SCC PART#	
16	2	WASHER LOCK HIGH COLLAR 6mm	SCC PART#	
17	2	WASHER FLAT 6mm	SCC PART#	

MATERIAL: N/A
FINISH: N/A

Static Controls Corporation
Controls Diagnostics Communications
30460 WIXOM ROAD
WIXOM, MI 48393
(248) 926-4400
FAX (248) 926-4412

DRAWN MikeG	JOB# 977-2X2
DATE 11/15/2007	TITLE ASSEMBLY DRAWING-1
SCALE N/A	
SIZE C	
REVISION LEVEL	QP# N/A
	FILE # PRESENTATION-1
Mechanical Tolerance 2 Place = ± .01 3 Place = ± .005	DWG # Presentation-1

Maintenance

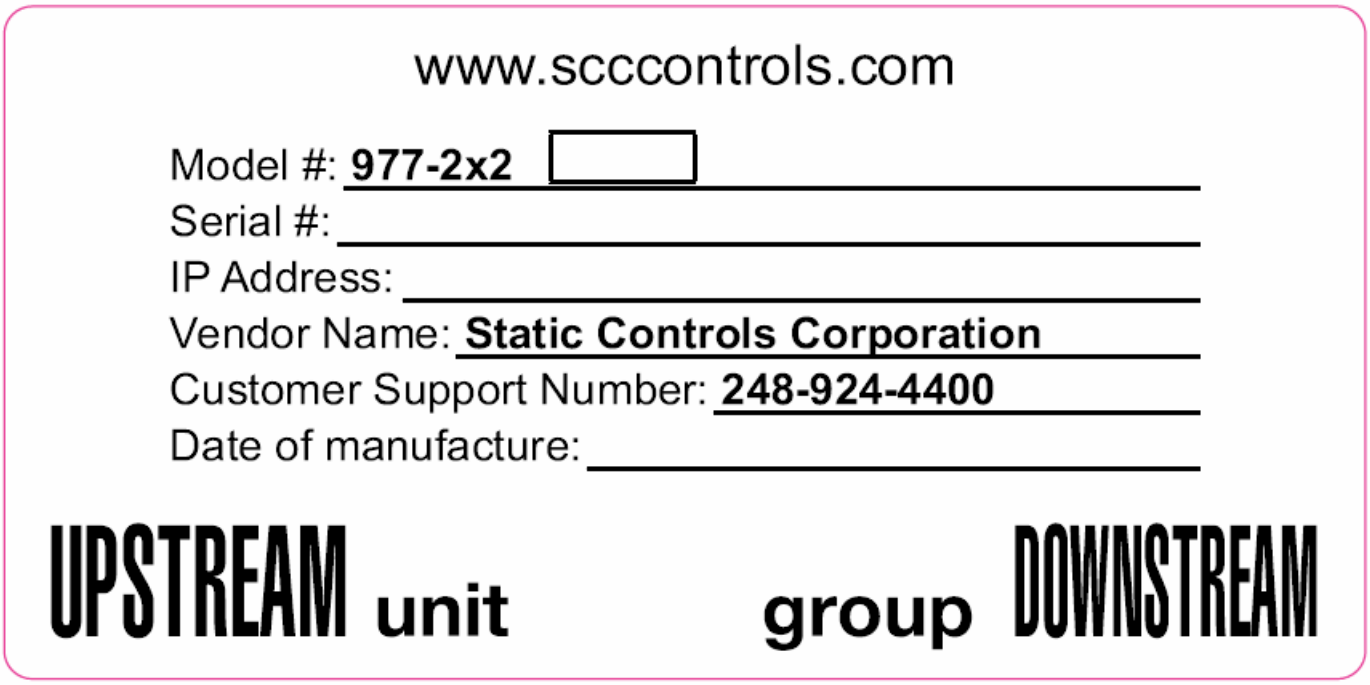
Recommended Spare Parts List (the quantity of each item will very depending on how many Andon boards are installed in your facility).

SCC PART NUMBER	DESCRIPTION
977-2x2	LED BACKLIT MODULE
977-2x2-802	LED BACKLIT MODULE WITH NUMERICS
977-PS-40	POWER & COMMUNICATION PANEL
22363	CABLE ADAPTER, DEVICENET TO SCC 4 PIN
977-TW	TIE WRAP FOR CABLES
28801	RUBBER END CAPS
S970S2X2MOD	RIGHT ANGLE MOUNTING BRACKET
970-S-2X2-MOD	VERTICAL MOUNTING STRAP
28209	PUSH PIN FOR LENS
PL-QUAD-POD-MW	OPAQUE CELL LENS
PL-QUAD-POD-CL	TINTED NUMERIC LENS

Appendix

Sign Identification

Each board will have an identification tag on it containing vendor, network, and electrical information as laid out below.

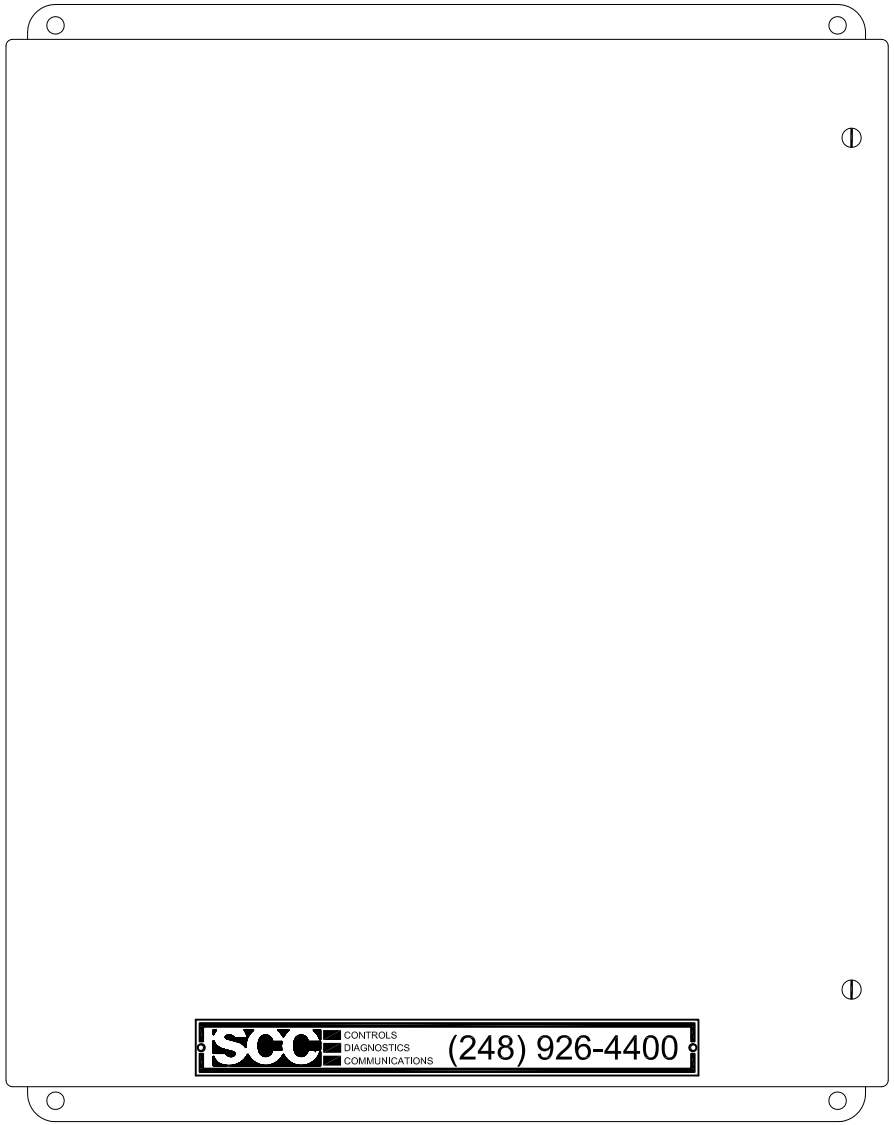


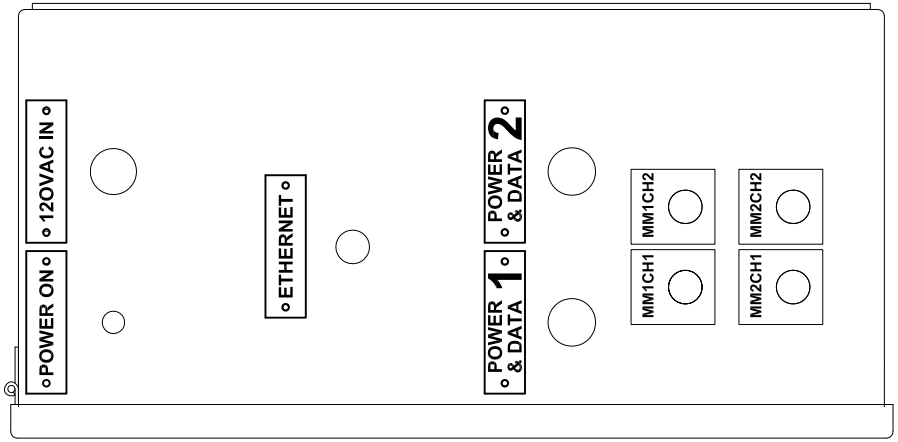
REV	DESCRIPTION	BY	DATE
A0	INITIAL RELEASE	MET	04.13.09

PAGE SUBTITLE — PAGE NUMBER

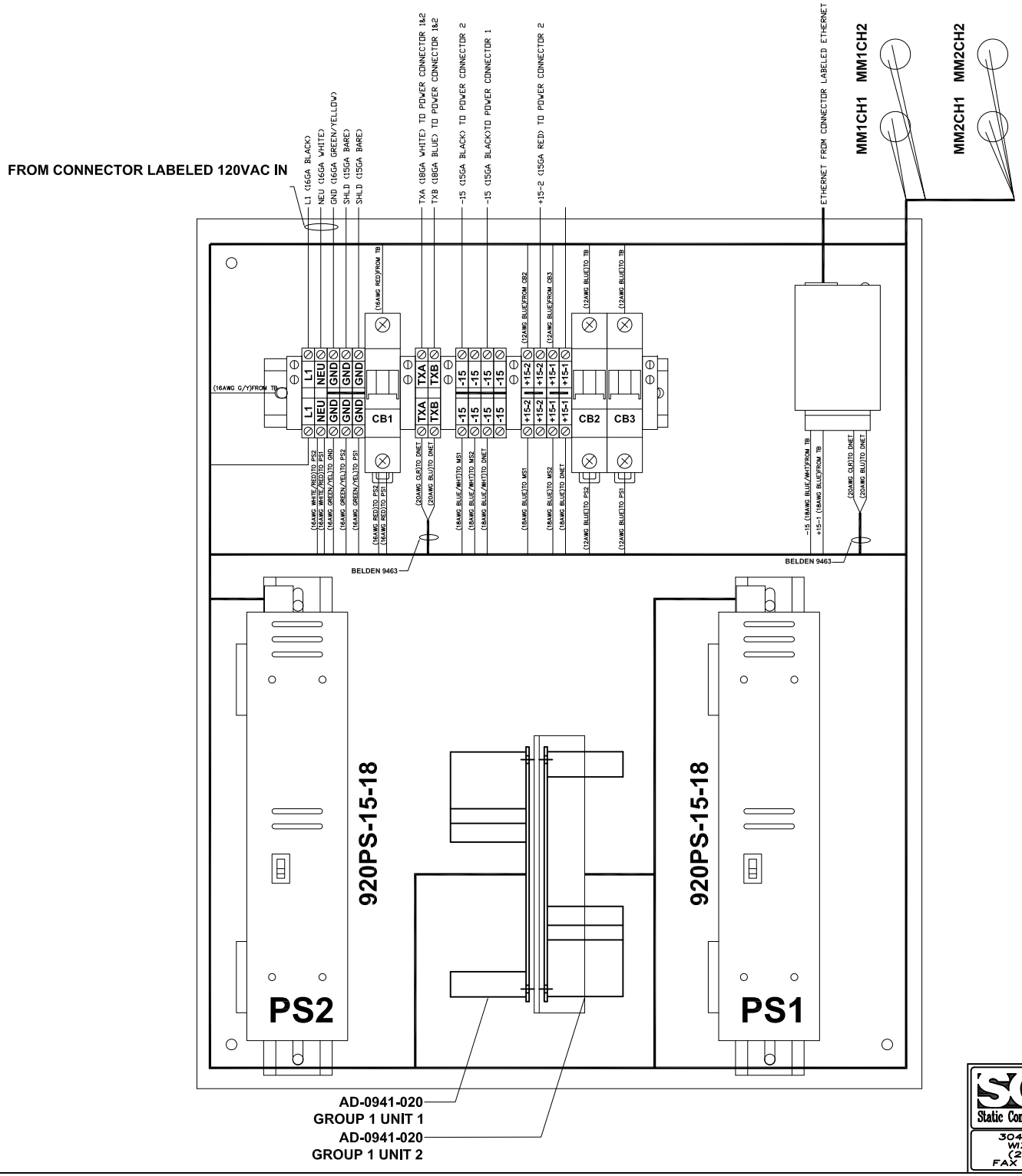
SCC Controls Diagnostics Communications
Static Controls Corporation
30460 WIXOM ROAD
WIXOM, MI 48393
(248) 926-4400
FAX (248) 926-4412

Drawn MET 04.13.09
Design
Appr.
Size A Scale NONE
Title: TABLE OF CONTENTS
File 977-PS-40-MS101.DWG Page# 1 of 06
DRAWING NUMBER ES-977-PS-40-MS1 Rev. A0



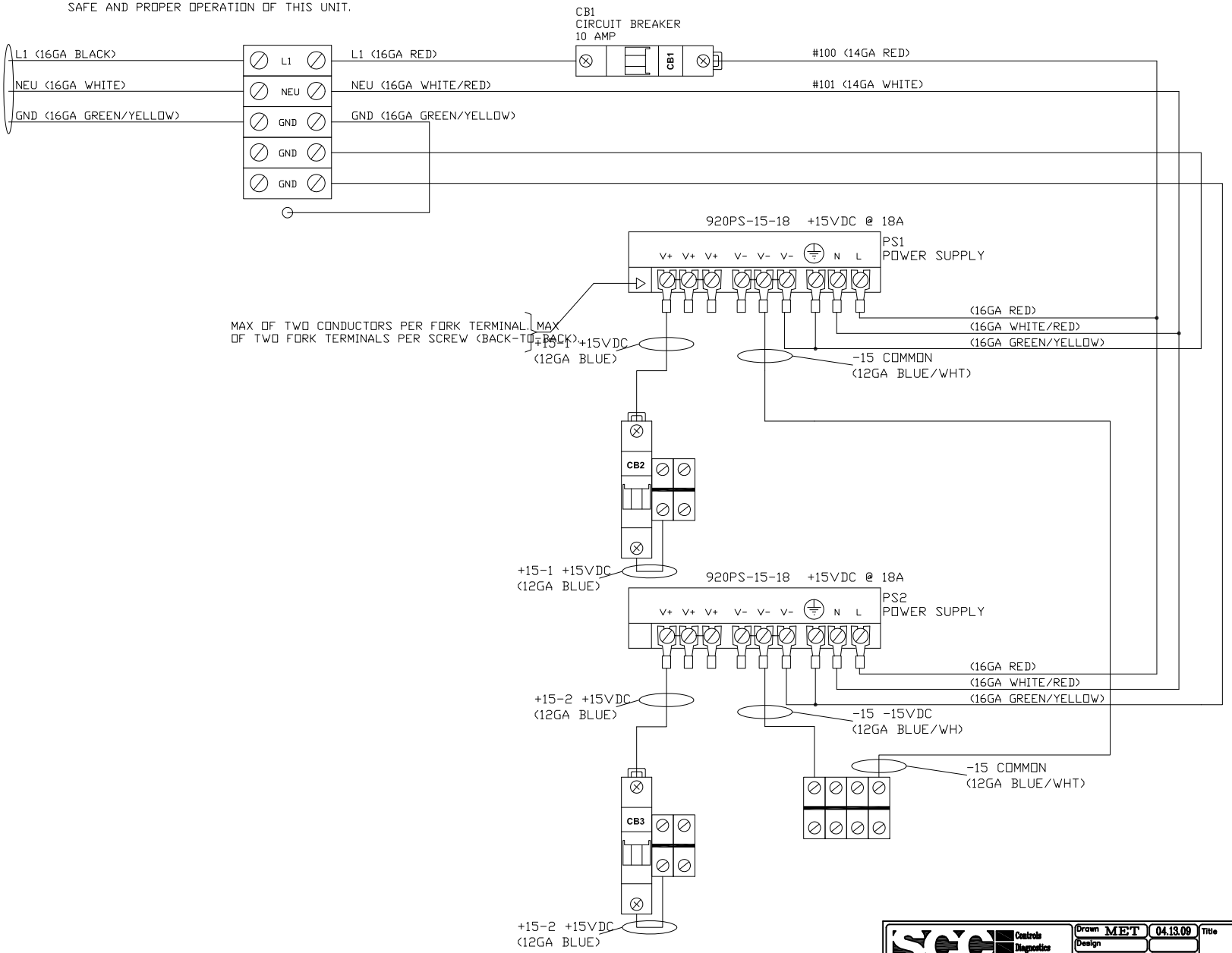


Static Controls Corporation (Controls Diagnostics Communications)	Drawn MET	04.13.09	Title: ENCLOSURE OVERVIEW
	Design		
	Appr.		
	Size A	Scale NONE	
	File 977-PS-40-MS102.DWG		Page# 2 of 06
30460 WIXOM ROAD WIXOM, MI 48393 (248) 926-4400 FAX (248) 926-4412	DRAWING NUMBER ES-977-PS-40-MS1		Rev. AO



Static Controls Corporation	Drawn MET 04.13.09	Title	WIRING OVERVIEW
30460 WIXOM ROAD WIXOM, MI 48393 (248) 926-4400 FAX (248) 926-4412	Design Appr. Size A Scale NONE File 977-PS-40-MS103.DWG Page# 3 of 06	DRAWING NUMBER	ES-977-PS-40-MS1 Rev. AO

CUSTOMER IS RESPONSIBLE FOR PROVIDING AN APPROPRIATE EARTH GROUND AT THE CUSTOMER CONNECTION POINT. AN EARTH GROUND IS REQUIRED FOR SAFE AND PROPER OPERATION OF THIS UNIT.



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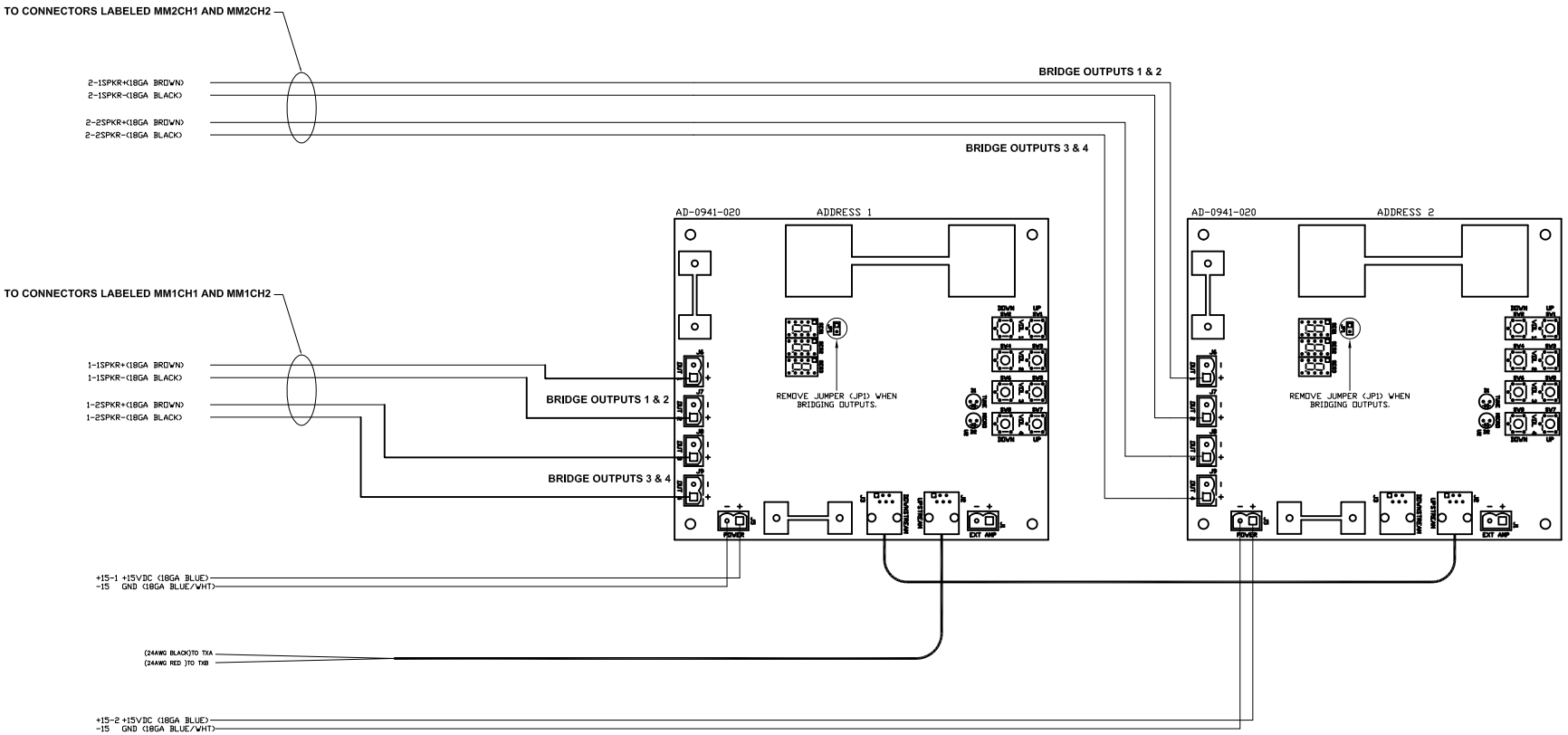
Drawn	MET	04.13.09
Design		
Appr.		
Size	A	Scale NONE
File	977-PS-40-MS104.DWG	Page# 4 of 06
DRAWING NUMBER	ES-977-PS-40-MS1	Rev. AO

Title: POWER SUPPLY WIRING DETAIL



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Drawn	MET	04.13.09
Design		
Appr.		
Size	A	Scale NONE
File	977-PS-40-MS105.DWG	Page# 5 of 06
DRAWING NUMBER	ES-977-PS-40-MS1	Rev. AO

Title: MUSIC SYSTEMS WIRING DETAIL

Tune # Decimal	Tune # Hex	Tune # Binary 87654321	Tune Name
0	00	00000000	Null (no tune played)
1	01	00000001	One 440 Hz beep, every 2 seconds
2	02	00000010	Continuous Tone: 1047 Hz
3	03	00000011	Two 880 Hz beeps, every 2 seconds
4	04	00000100	Interrupted Tone: 1047 Hz, 1 Hz rate
5	05	00000101	Changing Tone: 1047/523 Hz, 1 Hz rate
6	06	00000110	Ascending Sawtooth: 440 to 1661 Hz
7	07	00000111	Descending Sawtooth: 1661 to 440 Hz
8	08	00001000	Sine Wave: 500 to 1500 Hz, 1 Hz rate
9	09	00001001	Descending Sawtooth: 1200 to 500 Hz, 1 Hz
10	0A	00001010	Siren: 2 sec ramp from 493 to 1567 Hz
11	0B	00001011	Siren Horn: Continuous Tone 220 Hz
12	0C	00001100	Three Tone Gong: 659/554/440 Hz
13	0D	00001101	Two Tone Gong: 554/440 Hz
14	0E	00001110	One Tone Gong: 1047 Hz
15	0F	00001111	Three 1661 Hz beeps, every 2 seconds
16	10	00010000	Siren #2: 2 sec ramp from 110 to 659 Hz
17	11	00010001	Jingle Bells
18	12	00010010	La Cucaracha
19	13	00010011	Oh Dear, What Can The Matter BE
20	14	00010100	Oh, Tannenbaum
21	15	00010101	Shave And A Haircut
22	16	00010110	Twinkle Twinkle Little Star
23	17	00010111	Westminster Chimes
24	18	00011000	Yankee Doodle
25	19	00011001	When The Saints
26	1A	00011010	Take Me Out To The Ballgame
27	1B	00011011	Chargel
28	1C	00011100	Doe, A Deer
29	1D	00011101	Beethoven's Fifth
30	1E	00011110	It's A Small World After All
31	1F	00011111	Can-Can
32	20	00100000	Mission Impossible
33	21	00100001	Loony Tunes
34	22	00100010	Addam's Family
35	23	00100011	William Tell Overture
36	24	00100100	Mickey Mouse
37	25	00100101	Oh, Susanna
38	26	00100110	Jeopardy
39	27	00100111	Mexican Hat Dance
40	28	00101000	Love me Tender
41	29	00101001	Old Lang Syne
42	2A	00101010	Three Blind Mice
43	2B	00101011	Michael, Row Your Boat Ashore
44	2C	00101100	Scales
45	2D	00101101	The Three Stooges
46	2E	00101110	Peter Gunn
47	2F	00101111	The Worms Crawl In
48	30	00110000	How Much Is That Doggie In The Window
49	31	00110001	Revelie
50	32	00110010	Classic Piano #1
51	33	00110011	Tijuana Taxi
52	34	00110100	Merrily We Roll Along
53	35	00110101	My Country Tis' Of Thee
54	36	00110110	Beautiful Dreamer
55	37	00110111	Home On The Range
56	38	00111000	The Cradle Song
57	39	00111001	London Bridges
58	3A	00111010	The Hunt
59	3B	00111011	Amazing Grace
60	3C	00111100	Hello Mother, Hello Father
61	3D	00111101	Rock n'Roll Riff
62	3E	00111110	Big Las Vegas Ending
63	3F	00111111	The Big Top
64	40	01000000	Winchester Cathedral
65	41	01000001	She'll Be Comin' 'Round The Mountain
66	42	01000010	Old MacDonald
67	43	01000011	The Banana Boat Song
68	44	01000100	Mack The Knife
69	45	01000101	The Mulberry Bush
70	46	01000110	Jack And Jill
71	47	01000111	It's Raining, It's Pouring
72	48	01001000	Dueling Banjos
73	49	01001001	Georgia
74	4A	01001010	The Candyman Can
75	4B	01001011	The Good, The Bad, And The Ugly
76	4C	01001100	The Munster's Theme
77	4D	01001101	My Three Sons
78	4E	01001110	Tea For Two
79	4F	01001111	Classic Piano #2
80	50	01010000	Strangers In The Night
81	51	01010001	Rock Around The Clock
82	52	01010010	No Matter What Shape You're In
83	53	01010011	'That's Amore'
84	54	01010100	On Top Of Old Smokey
85	55	01010101	Til' There Was You
86	56	01010110	Dinah Won't You Blow Your Horn
87	57	01010111	Goodnight Ladies
88	58	01011000	Good Night Irene
89	59	01011001	The Wizard of Oz
90	5A	01011010	If I Only Had A Brain
91	5B	01011011	Somewhere Over The Rainbow
92	5C	01011100	I'm Looking Over A Four-Leaf Clover
93	5D	01011101	America, The Beautiful
94	5E	01011110	Shortnin' Bread
95	5F	01011111	Up, Up, And Away
96	60	01100000	Age Of Aquarius
97	61	01100001	Chattanooga Choo-Choo
98	62	01100010	Lemon Tree
99	63	01100011	Rocky's Theme
100	64	01100100	Hail To The Victors
101	65	01100101	Rose Garden
102	66	01100110	Wedding March
103	67	01100111	Star Wars Theme
104	68	01101000	I Dream Of Jeanie
105	69	01101001	Mighty Mouse Theme
106	6A	01101010	You Are My Sunshine
107	6B	01101011	The Entertainer
108	6C	01101100	Oh, Say Can You See
109	6D	01101101	Roll Out The Barrel
110	6E	01101110	Vienna Waltz
111	6F	01101111	In The Hall Of The Mountain King
112	70	01110000	Theme From Dragnet
113	71	01110001	Never Smile At A Crocodile
114	72	01110010	Zip-Ah-Dee-Doo-Dah
115	73	01110011	This Old Man
116	74	01110100	The Sound Of Music
117	75	01110101	Edelweiss
118	76	01110110	My Favorite Things
119	77	01110111	If I Were A Rich Man
120	78	01111000	Casey Jones
121	79	01111001	The Ballad Of Jed Clampett
122	7A	01111010	Theme From Lassie
123	7B	01111011	Bagpipes
124	7C	01111100	Danny Boy
125	7D	01111101	George Of The Jungle
126	7E	01111110	The Cannon Song
127	7F	01111111	My Bonnie
128	80	10000000	The City Of New Orleans
129	81	10000001	Here Comes Peter Cottontail
130	82	10000010	Bill Bailey
131	83	10000011	The Green, Green Grass Of Home
132	84	10000100	Whistle While You Work
133	85	10000101	A Spoonful Of Sugar
134	86	10000110	Honeycomb
135	87	10000111	Tie A Yellow Ribbon
136	88	10001000	Black Is The Color Of My True Love's Hair
137	89	10001001	A Taste Of Honey
138	8A	10001010	Frankie And Johnny
139	8B	10001011	Ninety-Nine Bottles Of Beer On The Wall
140	8C	10001100	Only You
141	8D	10001101	Shoo Fly
142	8E	10001110	Old Man River
143	8F	10001111	When You Wish Upon A Star
144	90	10010000	My Darling Clementine
145	91	10010001	I Love Lucy
146	92	10010010	Bye Bye Birdie
147	93	10010011	Mares Eat Oats
148	94	10010100	California, Here I Come
149	95	10010101	The Old Gray Mare
150	96	10010110	Gee, Mom, I Wanna Go Home
151	97	10010111	As Those Caissons Go Rolling Along
152	98	10011000	Here Comes The Bride
153	99	10011001	I'd Like To Teach The World To Sing
154	9A	10011010	500 Miles
155	9B	10011011	All Of Me
156	9C	10011100	Don't Fence Me In
157	9D	10011101	Green Acres
158	9E	10011110	A White Sport Coat
159	9F	10011111	Happy Trails
160	A0	10100000	High Hopes
161	A1	10100001	Splish Splash
162	A2	10100010	The Stripper
163	A3	10100011	Mame
164	A4	10100100	The Rain In Spain
165	A5	10100101	When You're A Jet
166	A6	10100110	Chim-Chiminy
167	A7	10100111	Theme From Mr. Ed
168	A8	10101000	The Andy Griffith Show Theme
169	A9	10101001	Tip-Toe Through The Tulips
170	AA	10101010	Henry VIII
171	AB	10101011	Won't You Be My Neighbor
172	AC	10101100	Once Upon A Dream
173	AD	10101101	Tie Me Kangaroo Down, Sport
174	AE	10101110	Tom Dooley
175	AF	10101111	There Was An Old Lady
176	B0	10110000	Turkey In The Straw
177	B1	10110001	Let The Sun Shine In
178	B2	10110010	Secret Agent Man
179	B3	10110011	Bread And Butter
180	B4	10110100	Running Bear
181	B5	10110101	The Nutcracker Suite
182	B6	10110110	Felix The Cat
183	B7	10110111	Will The Circle Be Unbroken
184	B8	10111000	Jambalaya
185	B9	10111001	Blow The Man Down
186	BA	10111010	Popeye The Sailor Man
187	BB	10111011	Skullduggery
188	BC	10111100	The Lone Prairie
189	BD	10111101	Crazy
190	BE	10111110	Marine Marching Cadence
191	BF	10111111	Makin' Whoopee
192	C0	11000000	Stormy Weather
193	C1	11000001	Misty
194	C2	11000010	I Like Coffee, I Like Tea
195	C3	11000011	The Lion Sleeps Tonight
196	C4	11000100	L-O-V-E
197	C5	11000101	Looney Tunes Piano
198	C6	11000110	Blue Velvet
199	C7	11000111	Spanish Harlem
200	C8	11001000	The Brady Bunch
201	C9	11001001	I've Got Spurs
202	CA	11001010	I Left My Heart In San Francisco
203	CB	11001011	The Friendly Giant
204	CC	11001100	76 Trombones
205	CD	11001101	Row, Row, Row Your Boat
206	CE	11001110	Down In The Valley
207	CF	11001111	Koombaya
208	D0	11010000	Kookaburra
209	D1	11010001	Wake Up, Little Rosebud
210	D2	11010010	Marching To Pretoria
211	D3	11010011	I Searched The World Over
212	D4	11010100	Where, Oh Where, Has My Little Dog
213	D5	11010101	Tumblin' Tumbleweeds
214	D6	11010110	Spiderman
215	D7	11010111	Star Trek Theme
216	D8	11011000	For You Are Beautiful
217	D9	11011001	Dirty Water
218	DA	11011010	Yodel
219	DB	11011011	Frosty The Snowman
220	DC	11011100	Roll Me Over In The Clover
221	DD	11011101	It's Howdy Doody Time
222	DE	11011110	Moon River
223	DF	11011111	Take Five
224	E0	11100000	The Junction
225	E1	11100001	Cheers
226	E2	11100010	Under The Double Nickel
227	E3	11100011	The Godfather
228	E4	11100100	Answer The Phone
229	E5	11100101	The Parade
230	E6	11100110	You Send Me
231	E7	11100111	Spinning Wheel
232	E8	11101000	Ring Around The Rosies
233	E9	11101001	Chain Gang
234	EA	11101010	The Wild Blue Yonder
235	EB	11101011	Dirge
236	EC	11101100	Hard At Work
237	ED	11101101	Perculator
238	EE	11101110	Right Outta My Hair
239	EF	11101111	Last Kiss
240	F0	11110000	Y-M-C-A
241	F1	11110001	Malt-O-Meal
242	F2	11110010	Limbo
243	F3	11110011	Blue Eyes Cryin' In The Rain
244	F4	11110100	King Of The Road
245	F5	11110101	Oh, Lonesome Me
246	F6	11110110	Margaritaville
247	F7	11110111	Ooh-Wah-Diddy
248	F8	11111000	Satisfaction
249	F9	11111001	Blowin' In The Wind
250	FA	11111010	Puff, The Magic Dragon
251	FB	11111011	I'm A Yankee Doodle Dandy
252	FC	11111100	Que Sara Sara
253	FD	11111101	You're in the Army Now
254	FE	11111110	Sailing, Sailing
255	FF	11111111	Animal Crackers in my Soup

Static Controls Corporation
Controls Diagnostics Communications
30460 WIXOM ROAD
WIXOM, MI 48393
(248) 926-4400
FAX (248) 926-4412

Drawn MET 04.13.09
Design
Appr.
Size A Scale NONE
Title: TUNE LIST
File 977-PS-40-MS106.DWG Page# 6 of 06
DRAWING NUMBER ES-977-PS-40-MS1 Rev. AO

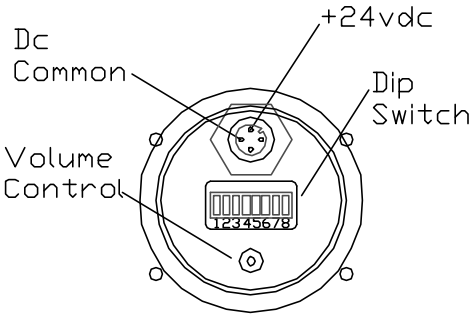
Xref Ref.dwg

Melody	Tune #	Dip Switch Value 1 2 3 4 5 6 7 8
A Bicycle Built for Two	0	0 0 0 0 0 0 0 0
1512 Overture	1	1 0 0 0 0 0 0 0
Hello My Baby	2	0 1 0 0 0 0 0 0
Home Sweet Home	3	1 1 0 0 0 0 0 0
In The Good Ol' Summertime	4	0 0 1 0 0 0 0 0
I've Been Working on the Railroad	5	1 0 1 0 0 0 0 0
La Cucaracha	6	0 1 1 0 0 0 0 0
Twinkle Twinkle Little Star	7	1 1 1 0 0 0 0 0
Westminster Chimes	8	0 0 0 1 0 0 0 0
Take Me Out To the Ballpark	9	1 0 0 1 0 0 0 0
It's a Small World	10	0 1 0 1 0 0 0 0
Con-Con	11	1 1 0 1 0 0 0 0
Adam's Family	12	0 0 1 1 0 0 0 0
William Tell Overture	13	1 0 1 1 0 0 0 0
Jeopardy	14	0 1 1 1 0 0 0 0
Mexican Hat Dance	15	1 1 1 1 0 0 0 0
Old Lang Synge	16	0 0 0 0 1 0 0 0
How Much is that Doggie	17	1 0 0 0 1 0 0 0
Classic Piano #1	18	0 1 0 0 1 0 0 0
Tijuana Taxi	19	1 1 0 0 1 0 0 0
Beautiful Dreamer	20	0 0 1 0 1 0 0 0
London Bridges	21	1 0 1 0 1 0 0 0
Winchester Cathedral	22	0 1 1 0 1 0 0 0
The Good, The Bad and The Ugly	23	1 1 1 0 1 0 0 0
The Munster's	24	0 0 0 1 1 0 0 0
Classic Piano #2	25	1 0 0 1 1 0 0 0
Strangers in The Night	26	0 1 0 1 1 0 0 0
The Wizard of Oz	27	1 1 0 1 1 0 0 0
Somewhere Over the Rainbow	28	0 0 1 1 1 0 0 0
I'm Looking Over a Four Leaf Clover	29	1 0 1 1 1 0 0 0
Wedding March	30	0 1 1 1 1 0 0 0
You are My Sunshine	31	1 1 1 1 1 0 0 0
The Entertainer	32	0 0 0 0 0 1 0 0
In The Hall Of The Mountain King	33	1 0 0 0 0 1 0 0
Edelweiss	34	0 1 0 0 0 1 0 0
If I Were a Rich Man	35	1 1 0 0 0 1 0 0
The Ballad of Jed Clampett	36	0 0 1 0 0 1 0 0
Bagpipes	37	1 0 1 0 0 1 0 0
The Cannon Song	38	0 1 1 0 0 1 0 0
Shoo Fly	39	1 1 1 0 0 1 0 0
Old Man River	40	0 0 0 1 0 1 0 0
When You Wish Upon A Star	41	1 0 0 1 0 1 0 0
My Darling Clementine	42	0 1 0 1 0 1 0 0
As Those Caissons Go Rolling Along	43	1 1 0 1 0 1 0 0

Melody	Tune #	Dip Switch Value 1 2 3 4 5 6 7 8
Henry VIII	44	0 0 1 1 0 1 0 0
Tom Dooley	45	1 0 1 1 0 1 0 0
Turkey In The Straw	46	0 1 1 1 0 1 0 0
The Nutcracker Suite	47	1 1 1 1 0 1 0 0
Popeye the Sailor Man	48	0 0 0 0 1 1 0 0
76 Trombones	49	1 0 0 0 1 1 0 0
Row, Row, Row Your Boat	50	0 1 0 0 1 1 0 0
Dirty Water	51	1 1 0 0 1 1 0 0
Under The Double Nickel	52	0 0 1 0 1 1 0 0
Ring Around The Rosies	53	1 0 1 0 1 1 0 0
Malt-O-Meal	54	0 1 1 0 1 1 0 0
Sailing, Sailing	55	1 1 1 0 1 1 0 0
Lassie	56	0 0 0 1 1 1 0 0
Three Tone Gong Slow	57	1 0 0 1 1 1 0 0
Three Tone Gong Fast	58	0 1 0 1 1 1 0 0
One Tone Gong 3 sec	59	1 1 0 1 1 1 0 0
Three Tone beep fast	60	0 0 1 1 1 1 0 0
Two beeps every 2 sec	61	1 0 1 1 1 1 0 0
Ping – One Beep	62	0 1 1 1 1 1 0 0
Continuous Tone	63	1 1 1 1 1 1 0 0

REV	DESCRIPTION	BY	DATE
A0	INITIAL RELEASE		XX/XX/XX
A1	CHANGES POTENTIOMETER. FROM BLUE TO BRONZE.		09/25/07
A1	CHANGED TUNE DIP SWITCH SETTINGS		09/25/07
A2	90 DEGREE COUNTER CLOCKWISE ROTATION ON CONNECTOR		10/04/07
A3	INPUT POWER (RMS) WAS 10W		03/31/08

Material: ABS Plastic (Black)
Size(inch): 7-1/2 "Dia.x9-1/4" L
Input Voltage: 24 VDC
Maximum Current: 0.4 Amps
Input Power(RMS): 40W
Impedance(OHM): 8
Freq.Range(Hz): 400-8K
Volume Output: 0-120 dB



(back view of speaker)

(customer supplied 4 pin micro-female)

941 board drawing

01.DWG 1