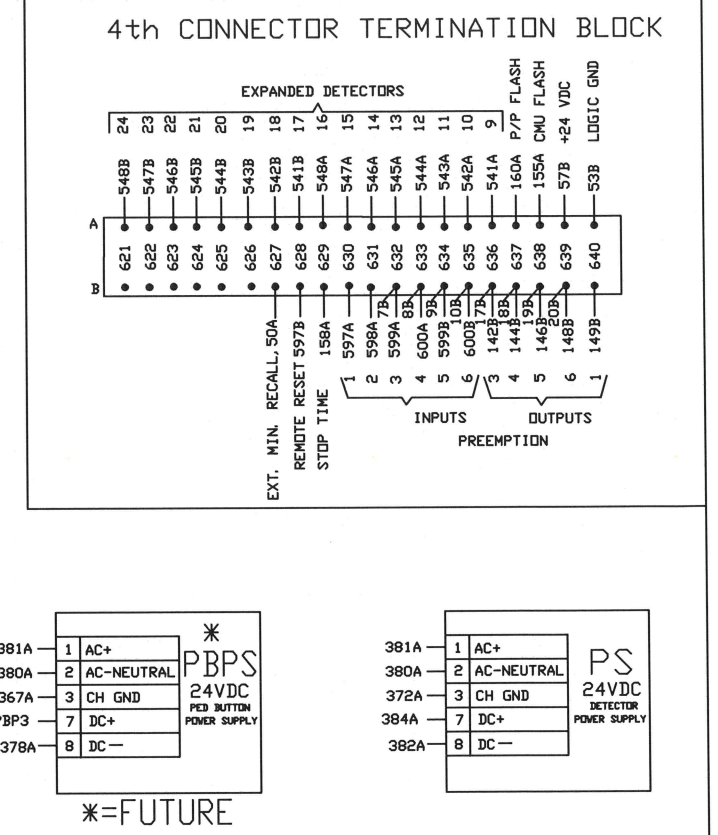
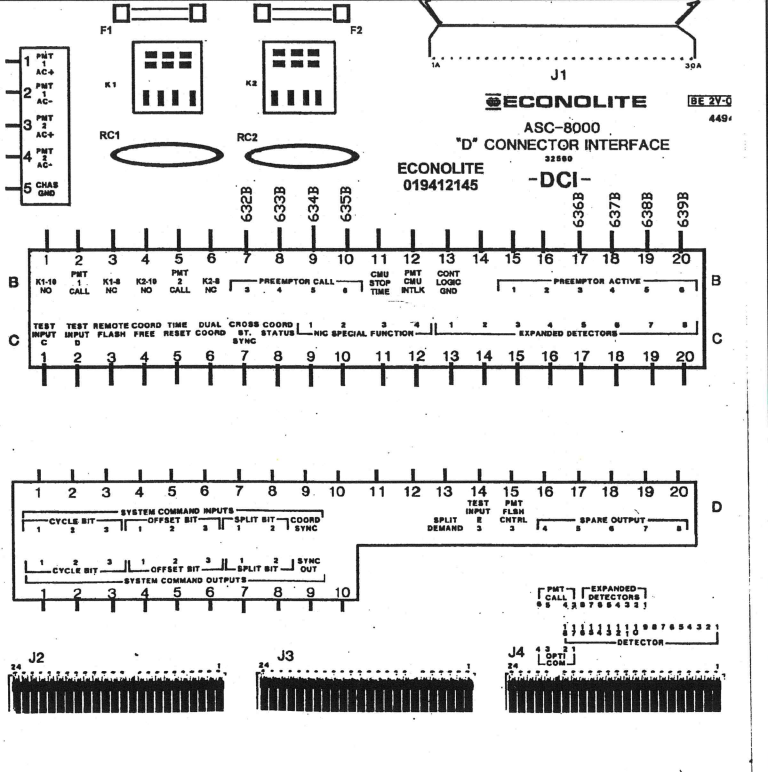


ASC 8000 "D" CONNECTOR INTERFACE PANEL

WIRE	FUNCTION	TERM
1	PREEMPT #1 ACTIVE	
2	SYSTEM COMMAND OFFSET BIT 3 OUTPUT	
3	SPLIT DEMAND	
4	SYSTEM COMMAND COORD SYNC INPUT	
5	CROSS STREET SYNC	
6	SYSTEM COMMAND CYCLE BIT 3 INPUT	
7	NOT USED	
8	NIC SPECIAL FUNCTION 2	
9	SYSTEM COMMAND OFFSET BIT 2 INPUT/EXTERNAL ADDRESS BIT 4	
10	SYSTEM COMMAND OFFSET BIT 2 INPUT/EXTERNAL ADDRESS BIT 1	
11	NIC SPECIAL FUNCTION ASPIRE OUTPUT 2	
12	SYSTEM COMMAND OFFSET BIT 1 INPUT/EXTERNAL ADDRESS BIT 0	
13	EXPANDED DETECTOR #8	
14	TIME RESET	
15	PREEMPTOR FLASH CONTROL	
16	SYSTEM COMMAND OFFSET BIT 1 INPUT/EXTERNAL ADDRESS BIT 3	
17	EXPANDED DETECTOR #1	
18	EXPANDED DETECTOR #4	
19	TEST INPUT E	
20	TEST INPUT C	
21	SYSTEM COMMAND SPLIT BIT 1 OUTPUT	
22	PREEMPTOR #1 ACTIVE	
23	SYSTEM COMMAND CYCLE BIT 3 OUTPUT	
24	NIC SPECIAL FUNCTION #2 SPARE OUTPUT 1	
25	SYSTEM COMMAND CYCLE BIT 1 INPUT	
26	COORD FREE	
27	COORD STATUS	
28	NIC SPECIAL FUNCTION 1	
29	SYSTEM COMMAND CYCLE BIT 3 OUTPUT	
30	EXPANDED DETECTOR #5	
31	EXPANDED DETECTOR #3	
32	PREEMPTOR #2 ACTIVE	
33	SYSTEM COMMAND OFFSET BIT 1 OUTPUT	
34	PREEMPTOR #4 ACTIVE	
35	SYSTEM COMMAND CYCLE BIT 2 INPUT	
36	SYSTEM COMMAND OFFSET BIT 3 INPUT/EXTERNAL ADDRESS BIT 2	
37	TEST INPUT D	
38	DUAL COORD	
39	EXPANDED DETECTOR #6	
40	EXPANDED DETECTOR #7	
41	SPARE OUTPUT 4	
42	SYSTEM COMMAND OFFSET BIT 2 OUTPUT	
43	SYSTEM COMMAND CYCLE BIT 1 OUTPUT	
44	SYSTEM COMMAND CYCLE BIT 2 OUTPUT	
45	SPARE OUTPUT 7	
46	SYSTEM COMMAND SPLIT BIT 2 OUTPUT	
47	EXPANDED DETECTOR #2	
48	PREEMPTOR #4 ACTIVE	
49	PREEMPTOR CALL #2	
50	PREEMPTOR CALL #3	
51	SPARE OUTPUT 5	
52	SYSTEM COMMAND SYNC OUT	
53	SPARE OUTPUT 8	
54	SPARE OUTPUT 6	
55	PREEMPTOR CALL #4	
56	PREEMPTOR CALL #5	
57	NOT USED	
58	CH1 STOP TIME (CONFLICT FLASH)	
59	PREEMPTOR CALL #6	
60	PREEMPTOR CALL #7	
61	PREEMPTOR CALL #8	
62	PREEMPTOR CALL #9	
63	PREEMPTOR CALL #10	
64	PREEMPTOR CALL #11	
65	PREEMPTOR CALL #12	
66	PREEMPTOR CALL #13	
67	PREEMPTOR CALL #14	
68	PREEMPTOR CALL #15	
69	PREEMPTOR CALL #16	
70	PREEMPTOR CALL #17	
71	PREEMPTOR CALL #18	
72	PREEMPTOR CALL #19	
73	PREEMPTOR CALL #20	
74	PREEMPTOR CALL #21	
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101	PREEMPTOR CALL #48	
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113	PREEMPTOR CALL #60	
114	PREEMPTOR CALL #61	
115	PREEMPTOR CALL #62	
116	PREEMPTOR CALL #63	
117	PREEMPTOR CALL #64	
118	PREEMPTOR CALL #65	
119	PREEMPTOR CALL #66	
120	PREEMPTOR CALL #67	
121	PREEMPTOR CALL #68	
122	PREEMPTOR CALL #69	
123	PREEMPTOR CALL #70	
124	PREEMPTOR CALL #71	
125	PREEMPTOR CALL #72	
126	PREEMPTOR CALL #73	
127	PREEMPTOR CALL #74	
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138	PREEMPTOR CALL #85	
139	PREEMPTOR CALL #86	
140	PREEMPTOR CALL #87	
141	PREEMPTOR CALL #88	
142	PREEMPTOR CALL #89	
143	PREEMPTOR CALL #90	
144	PREEMPTOR CALL #91	
145	PREEMPTOR CALL #92	
146	PREEMPTOR CALL #93	
147	PREEMPTOR CALL #94	
148	PREEMPTOR CALL #95	
149	PREEMPTOR CALL #96	
150	PREEMPTOR CALL #97	
151	PREEMPTOR CALL #98	
152	PREEMPTOR CALL #99	
153	PREEMPTOR CALL #100	



DETECTORS AND PPB ISOLATION

⊕ SA1 THROUGH SA7 ARE WIRED TO ACCEPT VEH DET. OR EVP DISCRIMINATOR DR PPB ISOLATOR.

MAIN I/O BLOCK	WIRE COLOR	SA I/O BLOCK	EDGE CONN.	Pin 10 of the edge conn. can be jumpered for use as CH delay inhibit. Jumpering will disable addressing.	DETECTORS								PPB ISOLATION	FUNCTIONS	PED ISOLATOR PIN		
					CH 1	CH 2	CH 3	CH 4	SA1	SA2	SA3	SA4				SA5	SA6
1	BLK/YEL	A	DC GROUND														
2	RED	B	24V DC+														
3	BLK/BLU	C	REMOTE RESET														
	BRN	3	D-4 CH 1 LOOP		303A	345A	313A	355A	323A	365A	333A	301A					
	WHT/BRN	4	E-5 CH 1 LOOP		304A	346A	314A	356A	324A	366A	334A	379A					
		6	ADDRESS BIT#0			SA1-15	SA2-10	SA3-15	SA4-15	SA5-10	SA6-15	NC					
	WHT/BLU	5	F CH 1 OUTPUT (+)		561B	563B	565B	567B	569B	571B	573B	577B					
	BLUE	6	H CH 1 OUTPUT (-)		501B	505B	509B	513B	517B	521B	525B	529B					
	BLK/RED	7	J-8 CH 2 LOOP		306A	348A	316A	358A	326A	368A	336A	302A					
	BLK/WHT	8	K-9 CH 2 LOOP		307A	349A	317A	359A	327A	369A	337A	379B					
		10	ADDRESS BIT# 1			SA1-6	SA3-6	SA4-6	SA4-10	SA5-15	SA7-6	NC					
12	GREEN	L	CHASSIS GROUND		340A												
15	WHITE	M	AC-		SA2-M												
13	BLACK	N	115V AC+		SA2-N												
	ORANGE	9	P-13 LOOP CH 3		308A	350A	318A	360A	328A	370A	338A	343A					
	WHT/DR	10R-14	LOOP CH 3		309A	351A	319A	361A	329A	371A	339A	379B					
		15	ADDRESS BIT#2		SA1-10	SA2-6	SA2-15	SA3-10	SA5-6	SA6-10	SA7-10	NC					
	WHT/GRY	11	S CH 3 OUTPUT (+)		562B	564B	566B	568B	570B	572B	574B	579B					
	GREY	12	T CH 3 OUTPUT (-)		503B	507B	511B	515B	519B	523B	527B	531B					
	YELLOW	13	U-17 CH 4 LOOP		311A	353A	321A	363A	331A	373A	341A	344A					
	WHT/YEL	14	V-18 CH 4 LOOP		312A	354A	322A	364A	332A	374A	342A	379A					
		19	DATA TRANSMIT														
		21	DATA RECEIVE														
	WHT/VIO	15	W CH 2 OUTPUT (+)		601B	603B	605B	607B	609B	611B	613B	578B					
	VIOLET	16	X CH 2 OUTPUT (-)		502B	506B	510B	514B	518B	522B	526B	530B					
	WHT/GRN	17	Y CH 4 OUTPUT (+)		602B	604B	606B	608B	610B	612B	614B	580B					
	WHT/BLK	18	Z CH 4 OUTPUT (-)		504B	508B	512B	516B	520B	524B	528B	532B					
	WHT/RED	1	1 CH 1 GREEN		554A	555A	556A	557A	558A	559A	560A						
	RED	2	2 CH 2 GREEN		554B	555B	556B	557B	558B	559B	560B						

REV. DATE REVISION

DATE 10/26/18 DRAWN NPD

REV. STATUS

SHEET	1	2	3
REV			

FIRM MNDOT

SCALE

FILE ACT0999

REV SHEET 3 OF 9

ACT Electronics, Inc.

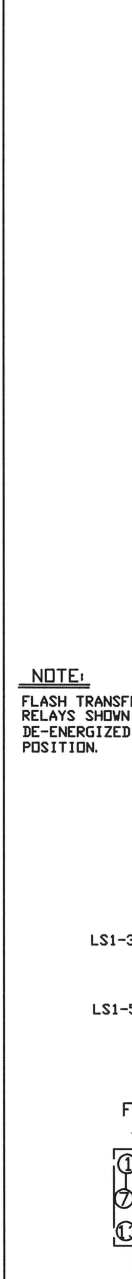
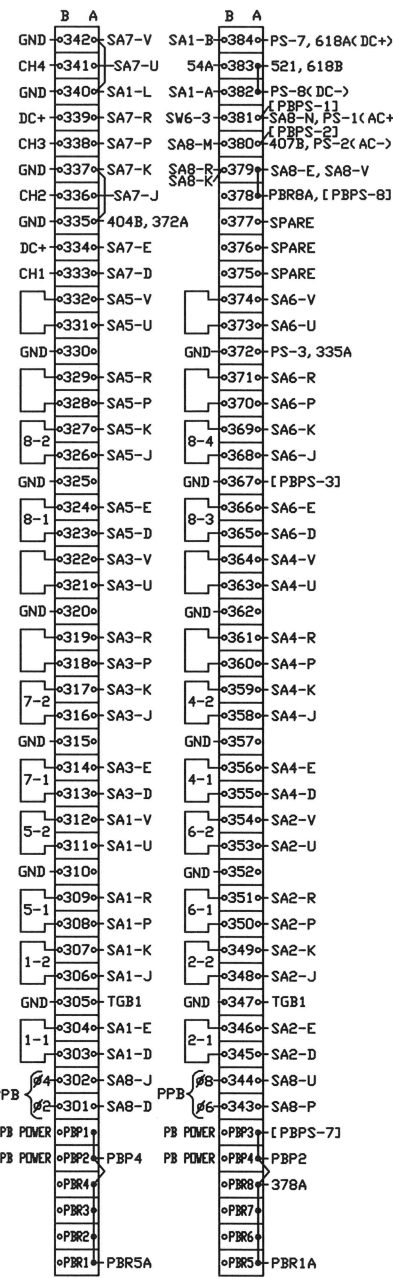
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TITLE MNDOT 2002 'R' & 'P' CABINET

SIZE PARTS

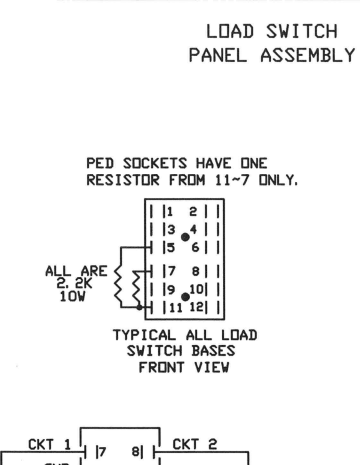
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LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14
CONT	1	2	3	4	5	6	7	8	2P	4P	6P	8P		
PLAN														

IN	GREEN / WALK	10	62A	69A	76A	82A	102A	109A	116A	122A	72A	85A	112A	125A
YELLOW/PED CLR	8	63A	70A	77A	83A	103A	110A	117A	123A	142B	144B	146B	148B	
RED/DON'T WALK	6	64A	71A	78A	84A	104A	111A	118A	124A	73A	86A	113A	126A	
OUT	GREEN / WALK	7	201A	207A	213A	219A	225A	231A	237A	243A	249A	255A	261A	267A
YELLOW	5	FP1-13	FP2-13	FP3-13	FP4-13	FP5-13	FP6-13	FP7-13	FP8-13	251A	257A	263A	269A	
RED/DON'T WALK	3	FP1-1	FP2-1	FP3-1	FP4-1	FP5-1	FP6-1	FP7-1	FP8-1	253A	259A	265A	271A	
POWER	+24 VDC	9												▷60B
CHASSIS GROUND	2													▷GB1
AC NEUTRAL	11	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	
R	115 VAC	1	SB1	SB1	SB2	SB2	SB1	SB1	SB2	SB2	SB1	SB2	SB1	▷60B



NEMA 12CH CONFLICT MONITOR

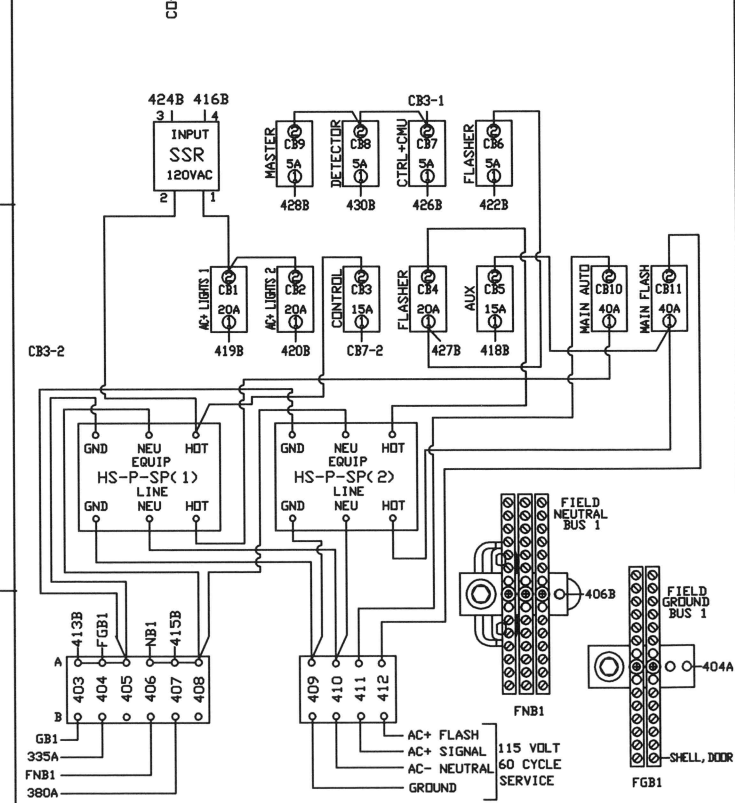
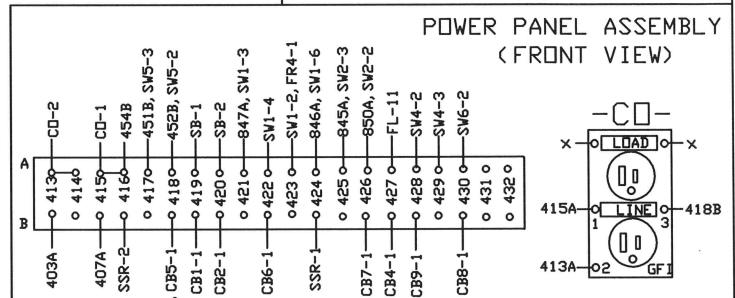
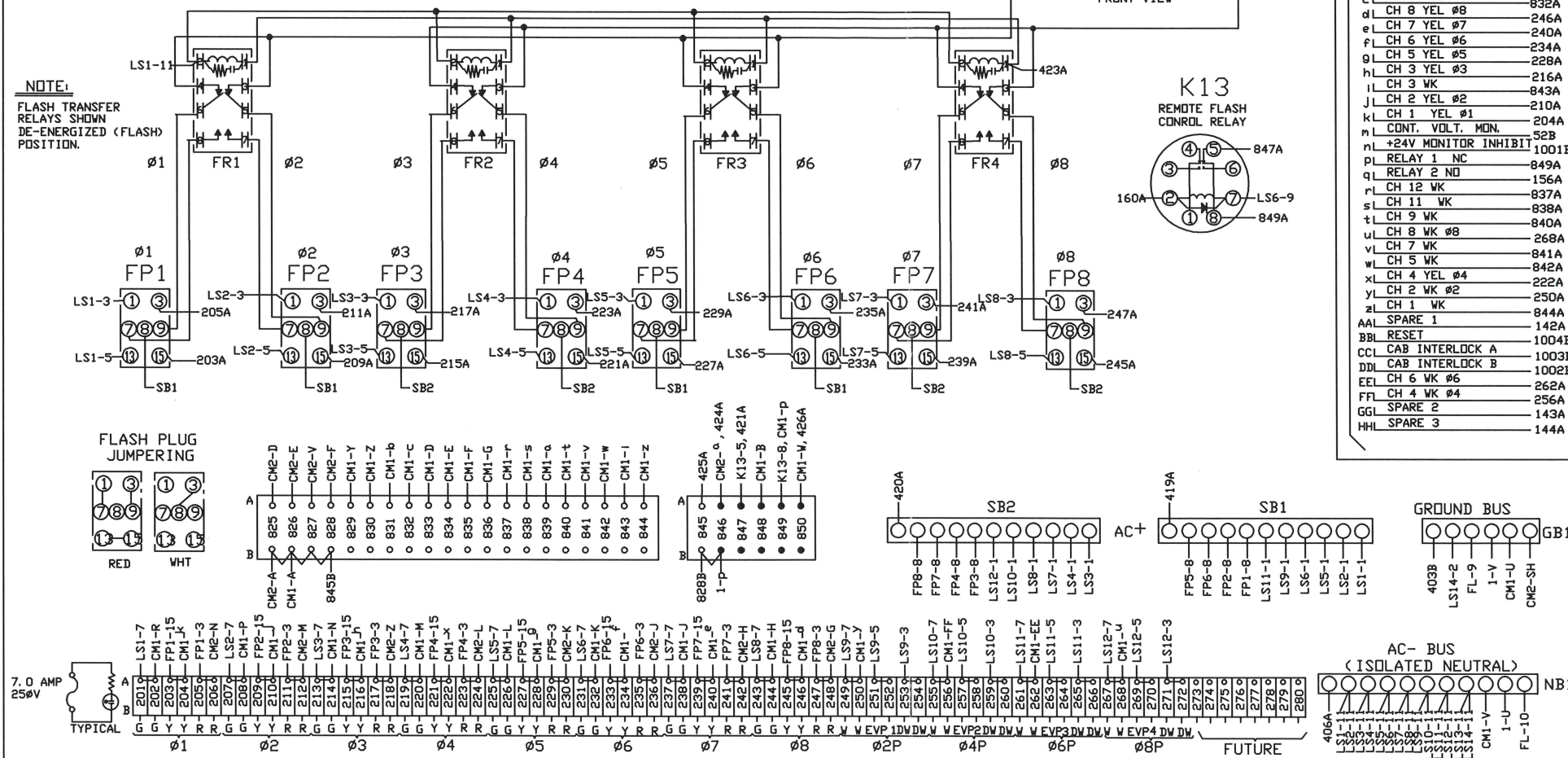
CM1	CM2
SH1 SHELL GROUND	GB1
A AC+ I	826B
B RELAY 1 NO	848A
C RELAY 2 NC	141A
D CH 12 GRN	833A
E CH 11 GRN	834A
F CH 10 GRN	835A
G CH 9 GRN	836A
H CH 8 GRN #8	244A
I CH 7 GRN #7	244A
J CH 6 GRN #6	238A
K CH 5 GRN #5	232A
L CH 4 GRN #4	226A
M CH 3 GRN #3	220A
N CH 2 GRN #2	214A
R CH 1 GRN #1	208A
S +24V MONITOR I	202A
T LOGIC GROUND	53B
U CHASSIS GROUND	SHELL
V AC-(NEUTRAL)	NB1
W RELAY 1 COMMON(AC)	850A
X RELAY 2 COMMON (LG)	54B
Y CH 12 YEL	829A
Z CH 10 YEL	830A
a CH 10 YEL	839A
b CH 9 YEL	831A
c CH 8 YEL #8	832A
d CH 7 YEL #7	246A
e CH 6 YEL #6	240A
f CH 5 YEL #5	234A
g CH 4 YEL #4	228A
h CH 3 YEL #3	216A
i CH 3 YEL #2	843A
j CH 1 YEL #1	210A
k CONT. VOLT. MON.	204A
n +24V MONITOR INHIBIT	1001B
p RELAY 1 NC	849A
q RELAY 2 NC	156A
r CH 12 WK	837A
s CH 11 WK	838A
t CH 9 WK	840A
u CH 8 WK #8	268A
v CH 7 WK	841A
w CH 5 WK	842A
x CH 4 YEL #4	222A
y CH 2 WK #2	250A
z CH 1 WK	844A
AAL SPARE 1	142A
BBI RESET	1004B
CCI CAB INTERLOCK A	1003B
DDI CAB INTERLOCK B	1002B
EEL CH 6 WK #6	262A
FFL CH 4 WK #4	256A
GGL SPARE 2	143A
HHL SPARE 3	144A

CONFLICT MONITOR MATRIX PROGRAMMING INSTRUCTIONS

1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1-3	2-4	3-5	4-6	5-7	6-8	7-9	8-10	9-11	10-12	
1-4	2-5	3-6	4-7	5-8	6-9	7-10	8-11	9-12		
1-5	2-6	3-7	4-8	5-9	6-10	7-11	8-12			
1-6	2-7	3-8	4-9	5-10	6-11	7-12				
1-7	2-8	3-9	4-10	5-11	6-12					
1-8	2-9	3-10	4-11	5-12						
1-9	2-10	3-11	4-12							
1-10	2-11	3-12								
1-11	2-12									
1-12										

CHANNEL-# COMBINATIONS NOT PINNED WITH MATRIX JUMPERS CONSTITUTE CONFLICTING MOVEMENTS. TO PROGRAM, CIRCLE PERMISSIVE COMBINATIONS AND INSTALL JUMPERS ON CORRESPONDING PINS ON THE PROGRAM CARD.

NOTE: FLASH TRANSFER RELAYS SHOWN DE-ENERGIZED (FLASH) POSITION.



- NOTES:
- PED BUTTON RETURNS MUST BE TERMINATED AT PBR1-PBR8.
 - JUMPERS 335A-337A AND 340A-342A, ARE TO BE ADDED AS NEEDED FOR EVP.
 - 305, 310, 315, 320, 325, 330, 335, 340, 347, 352, 357, 362, 367 AND 372 ARE INTERCONNECTED BY THE MOUNTING RAIL.
 - [] = FUTURE CONNECTIONS FOR POWER SUPPLY TO SENSITOUCH PPS'S.

TIGHTENING TORQUE SPECIFICATIONS

SCREW SIZE	6-32	8-32	10-32
POUND INCHES	12	16	25.9
BLOCK TYPE	SAKS56	RK6-10	SAKS35N
POUND INCHES	10.5	16	35
BLOCK TYPE	ND-36		
POUND INCHES	35		

EVP SENSORS

CABLE	DISCR. CHAN.	PHASES	POLE#	TERMINAL SIGNAL	TERMINAL DC(+)	TERMINAL GND
13	1	1-6	4	333	334	337
17	2	2-5	2	336	334	337
15	3	8	1	338	339	342
11	4	4	3	341	339	342

VEHICLE SIGNALS

CABLE	SIGNAL	TERMINAL G	TERMINAL Y	TERMINAL R
3	1-1	201	203	205
1	1-2	202	204	206
9, 8	2-1, 2-3		207	209
8	2-2		208	210
1	4-1		219	221
1	4-2		220	222
2	7-1	237	239	219
9	7-2	238	240	220
8	5-1	225	227	229
6	5-2	226	228	230
4, 3	6-1, 6-3		231	233
3	6-2		232	234
6, 7	8-1, 8-3		243	245
6, 4	8-2, 8-4		244	246

VEH DETECTORS

CABLE	DET	TERMINAL
27	1-1	303, 304
28	1-2	306, 307
29	2-1	345, 346
30	2-2	348, 349
31	4-1	355, 356
32	4-2	358, 359
33	5-1	308, 309
34	5-2	311, 312
35	6-1	350, 351
36	6-2	353, 354
37	7-1	313, 314
38	7-2	316, 317
39	8-1	323, 324
40	8-2	326, 327
41	8-3	365, 366
42	8-4	368, 369

PED PUSHBUTTONS

CABLE	PPB	TERMINAL	RETURN
19	PPB2-1	301	PBP1
26	PPB2-2	301	PBP1
21	PPB4-1	302	PBP2
19	PPB4-2	302	PBP2
24	PPB6-1	343	PBP3
22	PPB6-2	343	PBP3
25	PPB8-1	344	PBP4
23	PPB8-2	344	PBP4

PED SIGNALS

CABLE	SIGNAL	TERMINAL WK	TERMINAL DW
2	P2-1	249	253
10	P2-2	250	254
5	P4-1	255	259
20	P4-2	256	260
7	P6-1	261	265
5	P6-2	262	266
10	P8-1	267	271
7	P8-2	268	272

EVP VERIFY LIGHTS

CABLE	CONTR. CHAN.	PHASES	POLE#	TERM
14	2	1-6	4	251
18	3	2-5	2	257
16	4	8	1	263
12	5	4	3	269

VEH DETECTORS

CABLE	DET	TERMINAL
27	1-1	303, 304
28	1-2	306, 307
29	2-1	345, 346
30	2-2	348, 349
31	4-1	355, 356
32	4-2	358, 359
33	5-1	308, 309
34	5-2	311, 312
35	6-1	350, 351
36	6-2	353, 354
37	7-1	313, 314
38	7-2	316, 317
39	8-1	323, 324
40	8-2	326, 327
41	8-3	365, 366
42	8-4	368, 369

VEH DETECTORS

CABLE	DET	TERMINAL
27	1-1	303, 304
28	1-2	306, 307
29	2-1	345, 346
30	2-2	348, 349
31	4-1	355, 356
32	4-2	358, 359
33	5-1	308, 309
34	5-2	311, 312
35	6-1	350, 351
36	6-2	353, 354
37	7-1	313, 314
38	7-2	316, 317
39	8-1	323, 324
40	8-2	326, 327
41	8-3	365, 366
42	8-4	368, 369

EVP TYPICAL SENSOR WIRE COLORS

SIGNAL	DC(+)	GND
YEL	ORG	BLU
CLR	RED	BLK
WHT	RED	BLK

