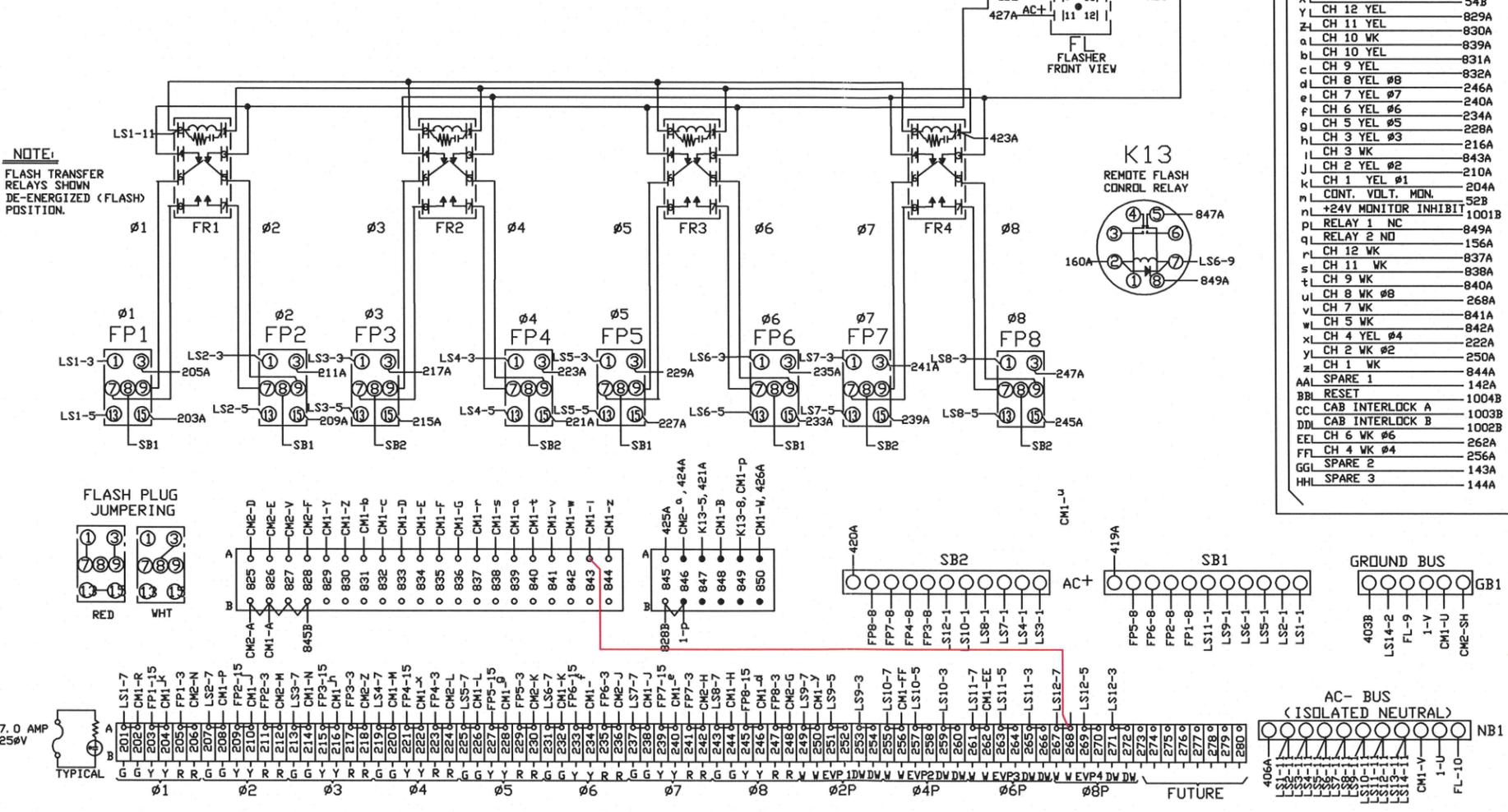


NOTES: 1. PED BUTTON RETURNS MUST BE TERMINATED AT PB1-PB8.
 2. JUMPERS 335A-337A AND 340A-342A, ARE TO BE ADDED AS NEEDED FOR EVP.
 3. 305, 310, 315, 320, 325, 330, 335, 340, 347, 352, 357, 362, 367 AND 372 ARE INTERCONNECTED BY THE MOUNTING RAIL.
 4. [J]=FUTURE CONNECTIONS FOR POWER SUPPLY TO SENSITOUCH PBP'S.

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														



EVP SENSORS

CABLE	DISCR. CHAN.	PHASES	POLE#	SIGNAL	DC(+)	TERMINAL	GND
16	1	1-6	1	333	334	337	
17	2	2-5	3	336	334	337	
18	4	4	4	341	339	342	

VEHICLE SIGNALS

CABLE	SIGNAL	TERMINAL	G	Y	R
1	1-1	201	203	205	
9	1-2	202	204	206	
6, 5	2-1, 2-3		207	209	211
6	2-2		208	210	212
4	3-1		213	215	217
3	3-2		214	216	218
8, 7	4-1, 4-3		219	221	223
8	4-2		220	222	224
5	5-1	225	227	229	
4	5-2	226	228	230	
2, 1	6-1, 6-3		231	233	235
2	6-2		232	234	236

VEH DETECTORS

CABLE	DET	TERMINAL
27	1-1	303, 304
28	1-2	306, 307
33	2-1	345, 346
34	2-2	348, 349
31	3-1	313, 314
32	3-2	316, 317
26	4-1	355, 356
24	4-2	358, 359
25	4-3	323, 324
22	5-1	308, 309
23	5-2	311, 312
29	6-1	350, 351
30	6-2	353, 354

PED PUSHBUTTONS

CABLE	PPB	TERMINAL	RETURN
15	PB2-1	301	PBP1
14	PB2-2	301	PBP1
10	PB4-1	302	PBP2
15	PB4-2	302	PBP2
11	PB6-1	343	PBP3
10	PB6-2	343	PBP3
14	PB3-1	344	PBP4
11	PB3-2	344	PBP4

PED SIGNALS

CABLE	SIGNAL	TERMINAL	W	DW
8	P2-1	249	253	
7	P2-2	250	254	
3	P4-1	255	259	
9	P4-2	256	260	
13	P6-1	261	265	
2	P6-2	262	266	
6	P3-1	267	271	
12	P3-2	268	272	

TIGHTENING TORQUE SPECIFICATIONS

SCREW SIZE	6-32	8-32	10-32
POUND INCHES	12	16	25
POUND INCHES	10.5	16	35

EVP VERIFY LIGHTS

CABLE	CONTR. CHAN.	PHASES	POLE#	TERM
19	3	1-6	1	251
20	4	2-5	3	257
21	6	4	4	269

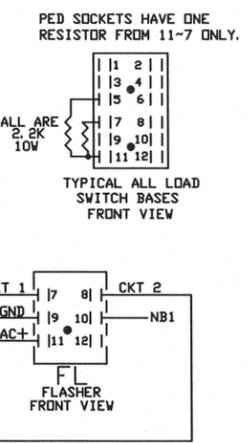
EVP TYPICAL SENSOR WIRE COLORS

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

SIGNAL HEAD NEUTRALS TO BE TERMINATED ON FNB1

LOOP LEAD IN DRAIN WIRES ARE TO BE CONNECTED TO GREEN/YEL TERMINAL BLOCKS ONLY

LOAD SWITCH PANEL ASSEMBLY



NEMA 12CH CONFLICT MONITOR

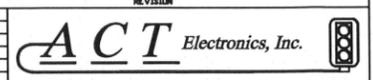
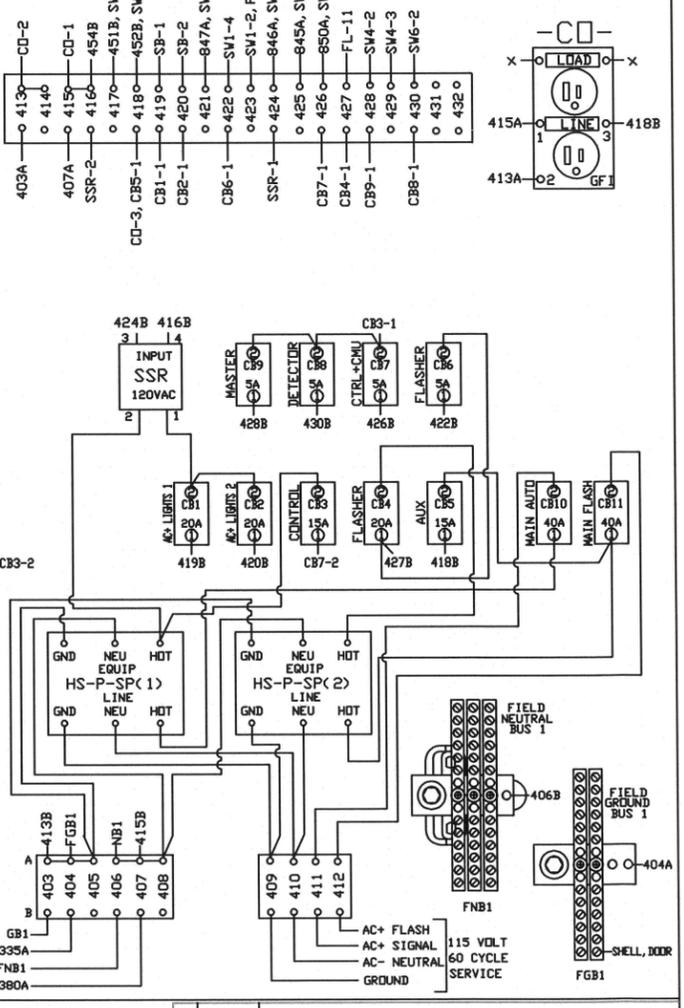
CM1	CM2
SH1 SHELL GROUND GB1	A1 AC+ II 825B
A1 AC+ I 826B	B1 DELAY RELAY COMM 55B
B1 RELAY 1 NO 848A	C1 DELAY RELAY NO 55B
C1 RELAY 2 NC 141A	D1 CH 12 RED 825A
D1 CH 12 GRN 833A	E1 CH 11 RED 826A
E1 CH 11 GRN 834A	F1 CH 10 RED 828A
F1 CH 10 GRN 835A	G1 CH 9 RED 828A
G1 CH 9 GRN 836A	H1 CH 8 RED 248A
H1 CH 8 GRN 244A	I1 CH 7 RED 242A
I1 CH 7 GRN 238A	J1 CH 6 RED 236A
J1 CH 6 GRN 232A	K1 CH 5 RED 230A
K1 CH 5 GRN 226A	L1 CH 4 RED 224A
L1 CH 4 GRN 220A	M1 CH 3 RED 212A
M1 CH 3 GRN 214A	N1 CH 2 RED 206A
N1 CH 2 GRN 208A	P1 SPARE 1 145A
P1 CH 1 GRN 202A	R1 +24V MONITOR II 58B
R1 CH 1 GRN 202A	S1 SPARE 2 146A
S1 +24V MONITOR I 59B	T1 SPARE 3 147A
T1 LOGIC GROUND 53B	U1 DELAY RELAY NC 1005B
U1 CHASSIS GROUND SHELL	V1 CH 10 RED 827A
V1 AC-(NEUTRAL) NB1	W1 SPARE 4 1006B
W1 RELAY 1 COMMON AC+ 850A	X1 SPARE 5 1007B
X1 RELAY 2 COMMON (LG) 54B	Y1 SPARE 6 1008B
Y1 CH 12 YEL 829A	Z1 CH 3 RED 218A
Z1 CH 11 YEL 830A	a1 RED ENABLE 846A
a1 CH 10 WK 839A	b1 SPARE 7 1009B
b1 CH 10 YEL 831A	c1 SPARE 8 1010B
c1 CH 9 YEL 832A	
d1 CH 8 YEL 246A	
e1 CH 7 YEL 240A	
f1 CH 6 YEL 234A	
g1 CH 5 YEL 228A	
h1 CH 3 YEL 216A	
i1 CH 3 WK 843A	
j1 CH 2 YEL 210A	
k1 CH 1 YEL 204A	
m1 CONT. VOLT. MON. 52B	
n1 +24V MONITOR INHIBIT 1001B	
p1 RELAY 2 NO 849A	
q1 CH 12 WK 156A	
r1 CH 11 WK 837A	
s1 CH 10 WK 838A	
t1 CH 9 WK 840A	
u1 CH 8 WK 268A	
v1 CH 7 WK 841A	
w1 CH 5 WK 842A	
x1 CH 4 YEL 222A	
y1 CH 2 WK 250A	
z1 CH 1 WK 844A	
aal SPARE 1 142A	
bb1 RESET 1004B	
cc1 CAB INTERLOCK A 1003B	
dd1 CAB INTERLOCK B 1002B	
eel CH 6 WK 262A	
ffl CH 4 WK 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
1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
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-Ø COMBINATIONS NOT PINNED WITH MATRIX JUMPERS CONSTITUTE CONFLICTING MOVEMENTS. TO PROGRAM, CIRCLE PERMISSIVE COMBINATIONS AND INSTALL JUMPERS ON CORRESPONDING PINS ON THE PROGRAM CARD.

POWER PANEL ASSEMBLY (FRONT VIEW)



CSAH#9 at CSAH#20 S.

REV. STATUS

SHEET	1	2	3
REV			

REV. DATE

REV	DATE	BY

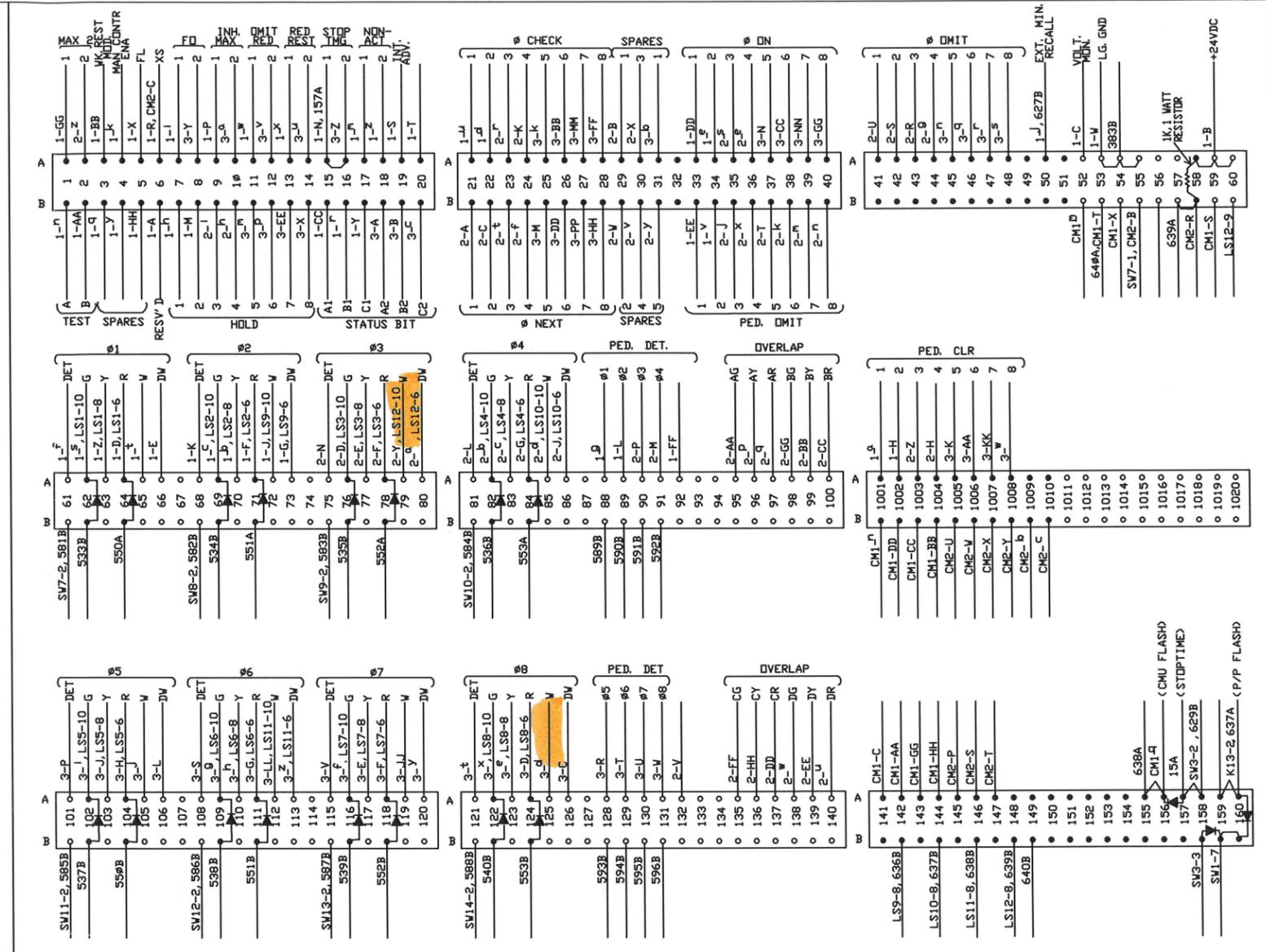
REV. REVISION

REV	DATE	BY	REVISION

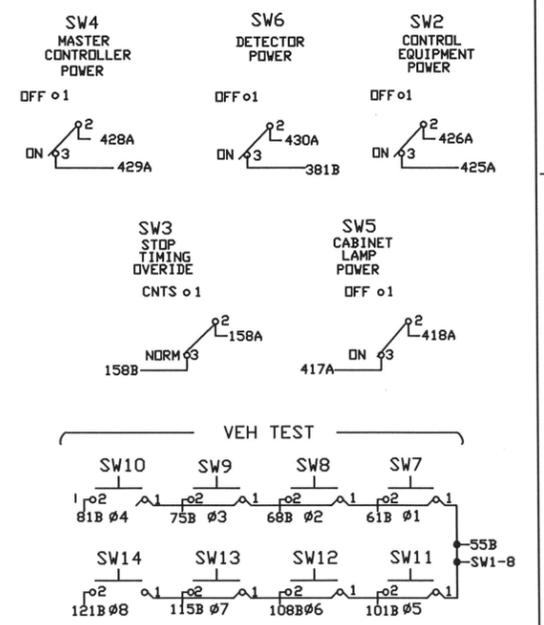
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 SHEET: 1 OF 3
 SCALE: FILE: ACTR001 REV: SHEET 1 OF 3

CONTROLLER INTERFACE PANEL

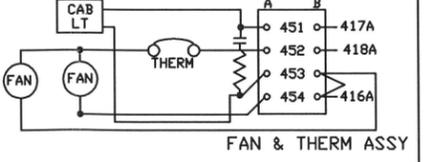
1	2	3
SHL SHELL GROUND 1-V	AL #1 PHASE NEXT 21B	AI STATUS BIT A2 18B
AL RESV. 6B	BL SPARE 1 29A	BI STATUS BIT B2 19B
BL 24VDC+ 59A	CL #2 PHASE NEXT 22B	CI #8 DWK 126A
CL VOLTAGE MONITOR 52A	DL #3 GRN 76A	DI #7 YEL 124A
DL #1 RED 64A	EL #3 YEL 77A	EI #7 RED 117A
EL #1 DWK 66A	FL #3 RED 78A	FI #7 RED 118A
FL #2 RED 71A	GL #4 RED 84A	GI #6 RED 111A
GL #2 DWK 73A	HL #4 PCL 1004A	HI #5 RED 104A
HL #2 PCL 1002A	JL #4 DWK 86A	JI #5 YEL 103A
KL #2 VEH DET 72A	KL #4 CHECK 24A	KI #5 PCL 1005A
LL #2 PED DET 68A	LL #4 VEH DET 81A	LI #5 DWK 106A
ML #2 HOLD 89A	ML #4 PED DET 91A	MI #5 PHASE NEXT 25B
NL STOP TIMING 1 8B	NL #3 VEH DET 91A	NI #5 PHASE DN 25B
PL INHIBIT MAX TERM 1 15A	PL #3 PED DET 75A	PI #5 VEH DET 37A
R EXTERNAL START 9A	RI #3 PHASE OMIT 90A	RI #5 PED DET 101A
S INTERVAL ADVANCE 6A	SI #2 PHASE OMIT 43A	SI #6 VEH DET 128A
T INDICATOR LAMP CONT 19A	SI #5 PED OMIT 42A	SI #6 PED DET 108A
UL AC- NEUTRAL NB1	TI #1 PHASE OMIT 37B	TI #6 PED DET 129A
V CHASSIS GROUND GB1	UI #1 PHASE OMIT 41A	UI #7 PED DET 130A
VL LOGIC GROUND 53A	VI PED RECYCLE 2 132A	VI #7 VEH DET 115A
WL FLASH LOGIC OUT 5A	WI SPARE 2 29B	VI #8 PED DET 131A
XL STATUS BIT C1 17B	XI SPARE 3 30A	VI #8 HOLD 14B
YL #1 YEL 63A	YI #3 WK 79A	YI FDRCE OFF 2 8A
ZL #1 PCL 1001A	ZI #3 PCL 1003A	ZI STOP TIME 2 16A
aL #1 PCL 1001A	aL #3 DWK 80A	aL INHIBIT MAX TERM 2 10A
bL #2 YEL 70A	bL #4 GRN 80A	bl SPARE 1 10A
cL #2 GRN 69A	cl #4 YEL 82A	cl STATUS BIT C2 31A
dL #2 CHECK 22A	cl #4 WALK 83A	dl #8 WK 20B
eL #2 PHASE DN 22A	eL #4 WALK 85A	el #8 YEL 125A
fL #1 VEH DET 34A	fL #4 PHASE DN 36A	fL #7 GRN 123A
gL #1 PED DET 61A	gL #4 PHASE NEXT 24B	fl #6 GRN 116A
hL #1 HOLD 88A	hl #4 PHASE OMIT 44A	gl #6 GRN 109A
IL FORCE OFF 1 7A	hl #4 HOLD 10B	hl #6 YEL 110A
JL EXT MIN RECALL ALL 50A	il #3 HOLD 9B	JI #5 WK 102A
KL MAN. CONTROL ENABLE 4A	jl #3 PED OMIT 35B	KI #5 CHECK 25A
ML CALL TO NON-ACT I 17A	kl #6 PED OMIT 38B	kl #5 HOLD 11B
NL TEST INPUT A 1B	ml #7 PED OMIT 39B	nl #5 PHASE OMIT 45A
PL AC+ CONTROL 846B	nl #8 PED OMIT 40B	pl #6 HOLD 45A
QL SPARE 1 3B	pl #1 A YEL 96A	ql #6 PHASE OMIT 12B
RL STATUS BIT B1 16B	ql #1 A RED 96A	rl #7 PHASE OMIT 46A
SL #1 GRN 62A	rl #3 CHECK 23A	rl #8 PHASE OMIT 47A
TL #1 WK 65A	sl #3 PHASE DN 23A	rl #8 VEH DET 48A
UL #1 CHECK 21A	tl #3 PHASE NEXT 35A	ul RED REST MODE 2 121A
VL #2 PED OMIT 34B	ul #1 D RED 23B	ul DMIT RED CLR 2 12A
WL DMIT RED CLR 11A	vl SPARE 4 140A	wl #8 PCL 1008A
XL RED REST MODE 1 13A	wl #1 D GRN 30B	xl #8 GRN 122A
YL SPARE 2 4B	xl #1 D GRN 138A	yl #7 DWK 120A
ZL CALL TO NON-ACT II 18A	xl #4 PED OMIT 36B	zl #6 DWK 113A
AA TEST INPUT B 2B	yl #1 MAX 2 SELECT 2 2A	aa #6 PCL 1006A
BB WALK REST MODIFIER 3A	aaL #1 A GRN 95A	bb #6 CHECK 26A
CC STATUS BIT A1 15B	bbL #1 B YEL 95A	cc #6 PHASE DN 26A
DD #1 PHASE DN 33A	ccL #1 B RED 99A	dd #6 PHASE NEXT 38A
EE #1 PED OMIT 33B	ddL #1 C RED 100A	eeL #7 HOLD 26B
FF PED RECYCLE 1 92A	eeL #1 D YEL 137A	ff #8 CHECK 13B
GG MAX 2 SELECT 1A	ffL #1 C GRN 139A	gg #8 PHASE DN 28A
HH SPARE 3 5B	ggL #1 B GRN 98A	gg #8 PHASE DN 40A
	hhL #1 C YEL 136A	hh #8 PHASE NEXT 28B
		jj #7 WK 119A
		kk #7 PCL 1007A
		ll #6 WK 112A
		mm #7 CHECK 27A
		nn #7 PHASE DN 39A
		pp #7 PHASE NEXT 27B



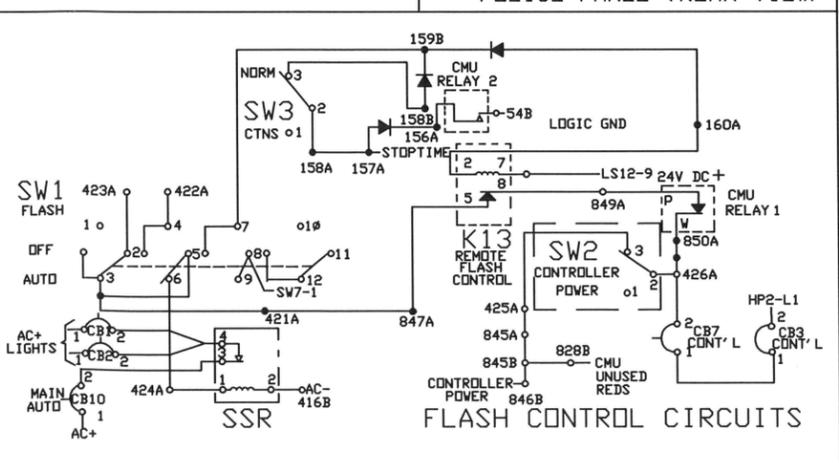
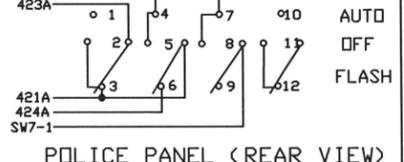
AUX PANEL (REAR VIEW)



FAN & THERM ASSY



POLICE PANEL (REAR VIEW)



REV	DATE	REVISION
DATE 10/20/08		
BRVH	HPD	
CSAH#9 AT CSAH#20 S.		
ACT Electronics, Inc.		
TITLE MNDOT 2002 'R' & 'P' CABINET		
SIZE	PARTS	
D		
SCALE	FILE	ACTELECTR
REV	STATUS	
SHEET 1 2 3		
REV		

