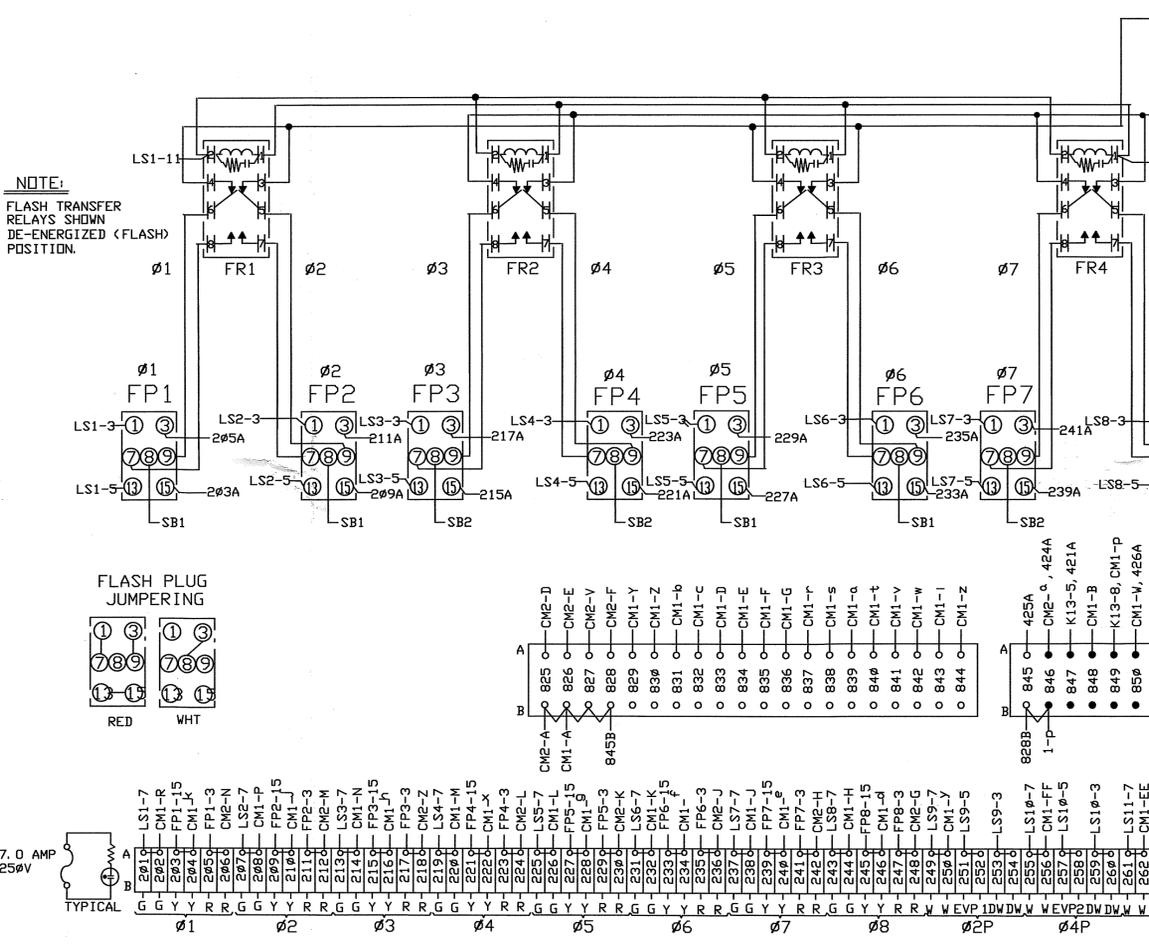


NOTE: 305, 310, 315, 320, 325, 330, 335, 340, 347, 352, 357, 362, 367 AND 372 ARE INTERCONNECTED BY THE WIEDMULLER MOUNTING RAIL.

JUMPERS 335A-337A AND 340A-342A, ARE TO BE ADDED AS NEEDED FOR EVP.

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
	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
OUT	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
	CHASSIS GROUND	2												
	AC NEUTRAL	11	NB1	NB1	NB1	NB1	NB1							
POWER	+24 VDC	9												
	115 VAC	1	SB1	SB1	SB2	SB2	SB1	SB1	SB2	SB2	SB1	SB2	SB1	SB2



TIGHTENING TORQUE SPECIFICATIONS

SCREW SIZE	6-32	8-32	10-32
POUND INCHES	12	16	25.9
BLOCK TYPE	SAKS56	RK6-10	SAK35N
POUND INCHES	10.5	16	35
BLOCK TYPE	ZB35	ZB10	
POUND INCHES	35.5	17.75	

VEHICLE SIGNALS

SIGNAL	TERMINAL		
	G	Y	R
1-1	201	203	205
1-2	202	204	206
2-1, 2-3		207	209 211
2-2		208	210 212
4-1, 4-3		219	221 223
4-2		220	222 224
4-4	337	339	220 222 224
4-5	338	340	219 221 223
5-1	225	227	229
5-2	226	228	230
6-1, 6-3		231	233 235
6-2		232	234 236
8-1, 8-3		243	245 247
8-2		244	246 248
8-4	213	215 217	244 246 248
8-5	214	216 218	243 245 247

SIGNAL HEAD NEUTRALS TO BE TERMINATED ON FNB1

VEH DETECTORS

DET	TERMINAL
1-1	303, 304
1-2	306, 307
2-1	346, 346
3-1	313, 314
3-2	316, 317
4-1, 4-2	355, 361, 358, 359
4-3	365, 366
4-4, 4-5	360, 361, 363, 364
5-1	308, 309
5-2	311, 312
6-1	348, 349
7-1	318, 319
7-2	321, 322
8-1, 8-2	323, 324, 326, 327
8-3	368, 369
8-4	328, 329

PED HEAD NEUTRALS TO BE TERMINATED ON FNB1

PED SIGNALS

SIGNAL	TERMINAL
P2-1	249 253
P2-2	250 254
P4-1	255 259
P4-2	256 260
P6-1	261 265
P6-2	262 266
P8-1	267 271
P8-2	268 272

EVP CONFIRMATORY LIGHTS

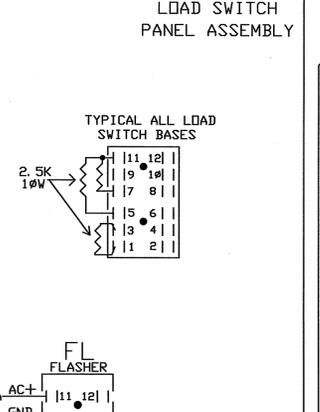
CONTR. CHAN.	PHASES	POLE#	TERM
1	1-6	3	251
2	2-5	1	257
3	4	2	263
4	8	4	264

PED PUSHBUTTONS

PPB	TERMINAL
PPB-1, PPB-2	301
PPB-4, PPB-2	302
PPB-1, PPB-2	343
PPB-1, PPB-2	344

NOTES

1) IF EVP HEADS ARE INSTALLED JUMPER 367B TO 369B AND / OR 335B TO 337B



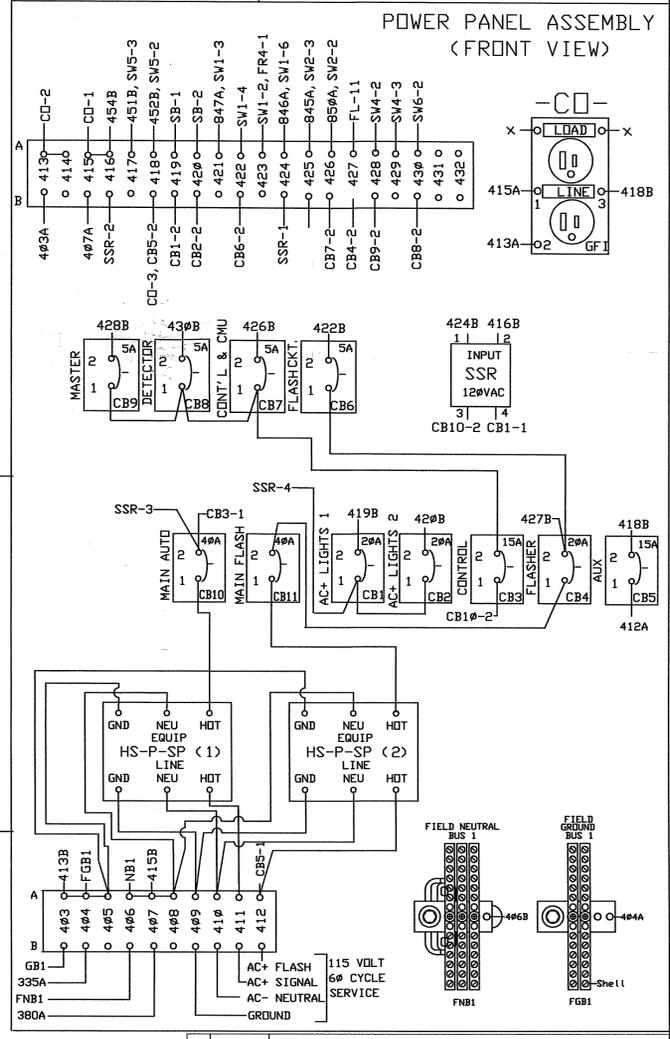
NEMA #2CH CONFLICT MONITOR

CM1	CM2
SHL SHELL GROUND	GB1
AL AC+I	826B
BL RELAY 1 NO	848A
CL DELAY RELAY NC	141A
DL CH 12 GRN	833A
EL CH 11 GRN	834A
FL CH 9 GRN	835A
GL CH 8 GRN	836A
HL CH 7 GRN	244A
JL CH 6 GRN	238A
KL CH 5 GRN	232A
LL CH 4 GRN	226A
ML CH 3 GRN	220A
NL CH 2 GRN	214A
PL CH 1 GRN	208A
RL CH 1 GRN	202A
SL +24V MONITOR I	59B
TL LOGIC GROUND	53B
UL CHASSIS GROUND	SHELL
VL AC-NEUTRAL	NB1
WL RELAY 1 COMMON (AG)	859A
XL RELAY 2 COMMON (LG)	54B
YL CH 12 YEL	829A
ZL CH 11 YEL	830A
al CH 10 WK	839A
bl CH 10 YEL	831A
cl CH 9 YEL	832A
dl CH 8 YEL	246A
el CH 7 YEL	240A
fl CH 6 YEL	234A
gl CH 5 YEL	228A
hl CH 3 YEL	216A
il CH 3 WK	843A
jl CH 2 YEL	210A
kl CH 1 YEL	204A
nl CONT. VOLT. MON.	52B
pl +24V MONITOR INHIBIT	1001B
ql RELAY 1 NC	849A
rl CH 12 WK	156A
sl CH 11 WK	837A
tl CH 9 WK	838A
ul CH 8 WK	840A
vl CH 7 WK	268A
wl CH 5 WK	841A
xl CH 4 YEL	842A
yl CH 2 WK	250A
zl CH 1 WK	844A
AAL SPARE 1	142A
BBL RESET	1004B
CCL CAB INTERLOCK A	1003B
DDL CAB INTERLOCK B	1002B
EEL CH 6 WK	262A
FL 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
1-3	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.



REV. STATUS

REV	STATUS
1	A
2	A
3	A

DATE: 8/25/99
DRAWN: MFD

REVISION

ACT Electronics, Inc.

LEXINGTON AT LAKE DR

TITLE: MNDOT 1999 "R" & "P" CABINET

SHEET: 1 2 3

REV: A A A

SCALE: D

FILE: ACT9901

REV A SHEET 1 OF 3

CONTROLLER INTERFACE PANEL

1	2	3
SHL SHELL GROUND 1-V	AL #1 PHASE NEXT 21B	AI STATUS BIT A2 108B
AL RESV+ 6B	BL SPARE 1 29A	BI STATUS BIT B2 198B
BL 24VDC+ 59A	CL #2 PHASE NEXT 22B	CI #8 DWK 126A
CL VOLTAGE MONITOR 52A	DL #3 GRN 76A	DI #8 RED 124A
EL #1 RED 64A	EL #3 YEL 77A	EI #7 YEL 117A
EL #2 RED 66A	FL #3 RED 78A	FI #7 RED 118A
FL #2 RED 71A	GL #4 RED 84A	GI #6 RED 118A
GL #2 DWK 73A	HL #4 PCL 1004A	HI #5 RED 104A
HL #2 PCL 1002A	JL #4 DWK 86A	JI #5 YEL 103A
JL #2 WK 72A	KL #4 CHECK 81A	KI #5 PCL 1005A
KL #2 VEH DET 68A	LL #4 VEH DET 24A	LI #5 DWK 1006A
LL #2 PED DET 89A	ML #4 PED DET 81A	MI #5 PHASE NEXT 106A
ML #2 HOLD 8B	NL #3 VEH DET 91A	NI #5 PHASE ON 25B
NI STOP TIMING 1 15A	OL #3 PED DET 75A	OI #5 VEH DET 37A
PI INHIBIT MAX TERM 1 9A	RL #3 PHASE OMIT 90A	RI #5 PED DET 101A
RI EXTERNAL START 6A	SL #2 PHASE OMIT 43A	SI #6 VEH DET 128A
SI INTERVAL ADVANCE 19A	TL #5 PED OMIT 42A	TI #6 PED DET 108A
T INDICATOR LAMP CONT 29A	UL #1 PHASE OMIT 37B	UI #7 PED DET 129A
UI AC NEUTRAL NB1	VL PED RECYCLE 2 41A	VI #7 VEH DET 130A
V CHASSIS GROUND GB1	WL SPARE 2 132A	VI #8 PED DET 115A
W LOGIC GROUND 53A	WL SPARE 3 29B	VI #8 HOLD 131A
X FLASH LOGIC OUT 5A	YL #3 WK 30A	VI #8 FORCE OFF 2 14B
Y STATUS BIT C1 17B	ZL #3 PCL 79A	ZI STOP TIME 8A
ZL #1 YEL 63A	al #3 DWK 1003A	al INHIBIT MAX TERM 2 16A
al #1 PCL 1001A	bl #4 GRN 80A	bl SPARE 1 19A
bl #2 YEL 70A	cl #4 YEL 82A	c STATUS BIT C2 20B
cl #2 GRN 69A	dl #4 WALK 83A	d #8 WK 125A
dl #2 CHECK 22A	el #4 PHASE ON 85A	e #8 YEL 123A
el #2 PHASE ON 34A	fl #4 PHASE NEXT 36A	f #7 GRN 116A
fl #1 VEH DET 61A	gl #4 PHASE OMIT 24B	g #6 GRN 109A
gl #1 PED DET 88A	hl #4 HOLD 44A	h #6 YEL 110A
hl #1 HOLD 7B	il #3 HOLD 9B	i #5 GRN 102A
i FORCE OFF 1 7A	jl #3 PED OMIT 35B	j #5 WK 105A
j EXT MIN RECALL ALL 50A	kl #6 PED OMIT 38B	k #5 CHECK 25A
k MAN. CONTROL ENABLE 4A	ml #7 PED OMIT 39B	m #5 HOLD 11B
l CALL TO NON-ACT I 17A	nl #8 PED OMIT 40B	n #5 PHASE OMIT 45A
m TEST INPUT A 1B	pl #1 A YEL 96A	p #6 HOLD 12B
n AC+ CONTROL 846B	ql #1 A RED 97A	q #6 PHASE OMIT 46A
o SPARE 1 3B	rl #3 CHECK 23A	r #7 PHASE OMIT 47A
p STATUS BIT B1 16B	sl #3 PHASE ON 35A	s #8 PHASE OMIT 48A
q #1 GRN 62A	tl #3 PHASE NEXT 23B	t #8 VEH DET 121A
r #1 WK 65A	ul #1 D RED 140A	u RED REST MODE 2 14A
s #1 CHECK 21A	vl #2 SPARE 4 30B	v OMIT RED CLR 2 12A
t #2 PED OMIT 34B	w #1 D GRN 138A	w #8 PCL 1008A
u OMIT RED CLR 11A	x #4 PED OMIT 36B	x #8 GRN 122A
w RED REST MODE 1 13A	yl #1 SPARE 5 31B	y #7 DWK 120A
x SPARE 2 4B	zl #1 MAX 2 SELECT 2 2A	z #6 DWK 113A
y CALL TO NON-ACT II 18A	AA #1 D GRN 95A	AA #6 PCL 1006A
z TEST INPUT B 2B	BB #1 D YEL 99A	BB #6 CHECK 26A
AA WALK REST MODIFIER 3A	CC #1 D RED 100A	CC #6 PHASE ON 38A
BB STATUS BIT A1 15B	DD #1 C RED 137A	DD #6 PHASE NEXT 26B
CC #1 PHASE ON 33A	EE #1 D YEL 139A	EE #7 HOLD 13B
DD #1 PED OMIT 33B	FF #1 C GRN 135A	FF #8 CHECK 28A
EE #1 PED OMIT 33B	GG #1 D B GRN 98A	GG #8 PHASE ON 40A
FF PED RECYCLE 1 92A	HH #1 D C YEL 136A	HH #8 PHASE NEXT 28B
GG MAX 2 SELECT 1A		JJ #7 WK 119A
HH SPARE 3 5B		KK #7 PCL 1007A
		LL #6 WK 112A
		MM #7 CHECK 27A
		NN #7 PHASE ON 39A
		PP #7 PHASE NEXT 27B

