

CONTROLLER INTERFACE PANEL

P1	P2	P3
SH SHELL GROUND GB3	SH SHELL GROUND GB3	SH SHELL GROUND GB3
A RESV. 6B	A 01 PHASE NEXT 21B	A STATUS BIT A 2 18B
B 24V DC+ 59A	B SPARE 1 29A	B STATUS BIT B 2 19B
C VOLTAGE MONITOR 54A	C 02 PHASE NEXT 22B	C 08 DWK 126A
D 01 RED 64A	D 03 GRN 76A	D 08 RED 124A
E 01 DWK 66A	E 03 YEL 77A	E 07 YEL 124A
F 02 RED 71A	F 04 RED 84A	F 07 RED 117A
G 02 DWK 73A	G 04 PCL 144A	G 06 RED 118A
H 02 PCL 142A	H 04 DWK 86A	H 05 RED 111A
J 02 WK 72A	J 04 CHECK 24A	H 05 YEL 104A
K 02 VEH DET 68A	L 04 VEH DET 81A	J 05 PCL 103A
L 02 PED DET 89A	M 04 PED DET 91A	K 05 DWK 145A
M 02 HOLD 88	N 03 VEH DET 75A	L 05 PHASE NEXT 106A
N STOP TIMING I 15A	P 03 PED DET 90A	M 05 PHASE ON 25B
P INHIBIT MAX TERM I 9A	R 03 PHASE OMIT 43A	N 05 VEH DET 37A
R EXTERNAL START 6A	S 02 PHASE OMIT 42A	P 05 PED DET 101A
S INTERVAL ADVANCE 20A	T 05 PED OMIT 37B	R 05 PED DET 128A
T INDICATOR LAMP CONT 19A	U 01 PHASE OMIT 41A	S 06 VEH DET 108A
V AC-COMMON NB3	V PED RECYCLE 2 132A	T 06 PED DET 129A
W CHASSIS GROUND GB3	W SPARE 2 29B	U 07 PED DET 130A
X LOGIC GROUND 55A	X SPARE 3 30A	V 07 VEH DET 115A
Y FLASH LOGIC OUT 5A	Y 03 WK 79A	W 08 PED DET 131A
Z 01 YEL 63A	Z 03 PCL 143A	X 08 HOLD 14B
a 02 YEL 141A	a 03 DWK 80A	Y FORCE OFF 2 8A
b 02 GRN 70A	b 04 GRN 82A	Z STOP TIME 2 16A
c 02 GRN 69A	c 04 YEL 83A	a INHIBIT MAX TERM 2 10A
d 02 CHECK 22A	d 04 WK 85A	b SPARE 1 31A
e 02 PHASE ON 34A	e 04 PHASE ON 36A	c STATUS BIT C 2 20B
f 01 VEH DET 61A	f 04 PHASE NEXT 24B	d 08 WK 125A
g 01 PED DET 88A	g 04 PHASE OMIT 44A	e 08 YEL 123A
h 01 HOLD 7B	h 04 HOLD 10B	f 07 GRN 116A
i FORCE OFF I 7A	i 03 HOLD 10B	g 06 GRN 109A
j EXT MIN RECALL ALL 50A	j 03 PED OMIT 35B	h 06 YEL 110A
k MAN CONTROL ENABLE 4A	k 06 PED OMIT 38B	i 05 GRN 102A
m CALL TO NON-ACT I 17A	l 07 PED OMIT 39B	j 05 WK 105A
n TEST INPUT A 1B	m 08 PED OMIT 40B	k 05 CHECK 25A
p AC+ CONTROL 846B	n OL A YEL 96A	l 05 HOLD 11B
q SPARE 1 3B	o OL A RED 97A	p 06 HOLD 12B
r STATUS BIT BI 16B	r 03 CHECK 23A	q 06 PHASE OMIT 46A
s 01 GRN 62A	s 03 PHASE ON 35A	r 07 PHASE OMIT 47A
t 01 WK 65A	t 03 PHASE NEXT 23B	s 08 PHASE OMIT 48A
u 01 CHECK 21A	u OL D RED 140A	t 08 VEH DET 121A
v 02 PED OMIT 34B	v SPARE 4 30B	u RED REST MODE 2 14A
w OMIT RED CLR 11A	w OL D GRN 138A	v OMIT RED CLR 2 12A
x RED REST MODE I 13A	x 04 PED OMIT 36B	w 08 PCL 148A
y SPARE 2 4B	y SPARE 5 31B	x 08 GRN 122A
z CALL TO NON-ACT II 18A	z MAX 2 SELECT 2 2A	y 07 DWK 120A
AA TEST INPUT B 2B	AA OL A GRN 95A	z 06 DWK 113A
BB WALK REST MODIFIER 3A	BB OL B YEL 99A	AA SPARE 1 150A
CC STATUS BIT A I 15B	CC OL B RED 100A	BB RESET 152B
DD 01 PHASE ON 33A	DD OL C RED 100A	CC CAB. INTERLOCK A 151B
EE 01 PED OMIT 33B	EE OL D YEL 137A	DD CAB. INTERLOCK B 151B
FF PED RECYCLE 92A	FF OL C GRN 139A	EE OL 6 WK 06 265A
GG MAX 2 SELECT 1A	GG OL B GRN 135A	FF CH 4 WK 04 259A
HH SPARE 3 5B	HH OL C YEL 136A	GG SPARE 2 151A
		HH SPARE 3 152A

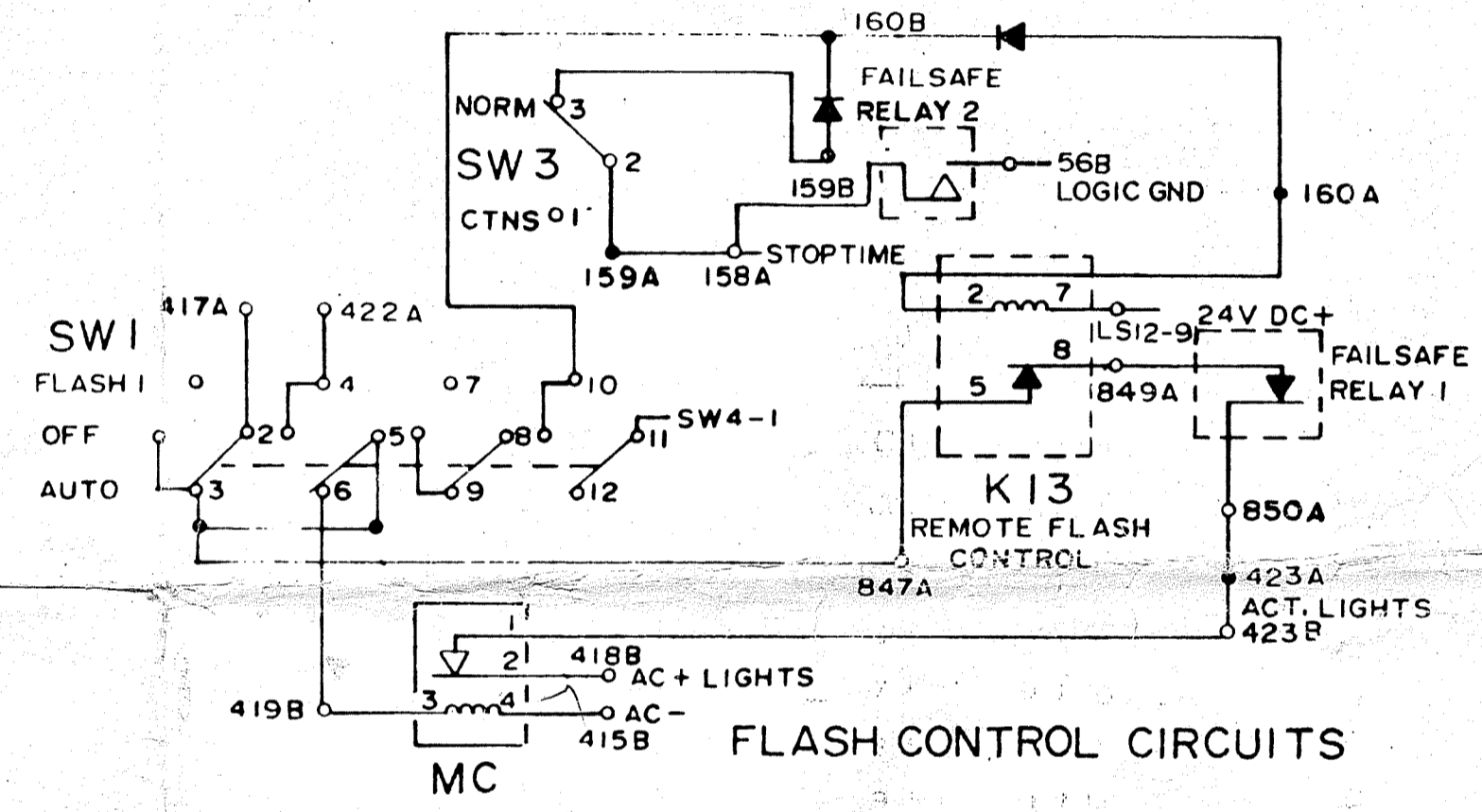
NEMA 12L CONFLICT MONITOR CMI CM2

SH SHELL GROUND GB3	SH SHELL GROUND GB3
A AC+ I 826B	A AC+ II 825B
B RELAY 1 NO 156A	B DELAY RELAY COMM 57B
C RELAY 2 NC 149A	C DELAY RELAY NO 6A
D CH 12 GRN 833A	D CH 12 RED 825A
E CH 11 GRN 834A	E CH 11 RED 826A
F CH 10 GRN 835A	F CH 9 RED 828A
G CH 9 GRN 836A	G CH 8 RED 08 248A
H CH 8 GRN 08 246A	H CH 7 RED 07 242A
J CH 7 GRN 07 240A	J CH 6 RED 06 236A
K CH 6 GRN 06 234A	K CH 5 RED 05 230A
L CH 5 GRN 05 228A	L CH 4 RED 04 224A
M CH 4 GRN 04 222A	M CH 2 RED 02 212A
N CH 3 GRN 03 216A	N CH 1 RED 01 206A
P CH 2 GRN 02 210A	P SPARE 1 153A
R CH 1 GRN 01 204A	R +24V MONITOR II 58B
S +24V MONITOR 58B	S SPARE 2 154A
T LOGIC GROUND 55B	T SPARE 3 155A
U CHASSIS GROUND SHELL	U DELAY RELAY NC 153B
V AC- 850A	V CH 10 RED 827A
W RELAY 1 COMMON (ACH) 56B	W SPARE 4 154B
X RELAY 2 COMMON (LGT) 56B	X SPARE 5 155B
Y CH 12 YEL 829A	Y SPARE 6 156B
Z CH 11 YEL 830A	Z CH 3 RED 03 218A
a CH 10 WK 839A	a RED ENABLE 846A
b CH 10 YEL 831A	b SPARE 7 157B
c CH 9 YEL 832A	c SPARE 8 158B
d CH 8 YEL 08 L58-5	
e CH 7 YEL 07 L57-5	
f CH 6 YEL 06 L56-5	
g CH 5 YEL 05 L55-5	
h CH 3 YEL 03 L53-5	
i CH 3 WK L53-5	
j CH 2 YEL 02 843A	
k CH 1 YEL 01 L52-5	
m CONT. VOLT. MON. L51-5	
n +24V MONITOR INHIBIT 149B	
p RELAY 1 NC 849A	
q RELAY 2 NO 158A	
r CH 12 WK 837A	
s CH 11 WK 838A	
t CH 9 WK 840A	
u CH 8 WK 08 271A	
v CH 7 WK 841A	
w CH 5 WK 842A	
x CH 4 YEL 04 L54-5	
y CH 2 WK 02 253A	
z CH 1 WK 844A	
AA SPARE 1 150A	
BB RESET 152B	
CC CAB. INTERLOCK A 151B	
DD CAB. INTERLOCK B 151B	
EE OL 6 WK 06 265A	
FF CH 4 WK 04 259A	
GG SPARE 2 151A	
HH SPARE 3 152A	

CONFLICT MONITOR MATRIX PROGRAMMING INSTRUCTIONS

1-2-3-4-5-6-7-8-9-10-11-12			
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	CH 5-0	5	
1-7-2-8-3-9-4-10-5-11-6-12	CH 6-0	6	
1-8-2-9-3-10-4-11-5-12	CH 7-0	7	
1-9-2-10-3-11-4-12	CH 8-0	8	
1-10-2-11-3-12	CH 1-0	1	CH 9-0
1-11-2-12	CH 2-0	2	CH 10-0
1-12	CH 3-0	3	CH 11-0
	CH 4-0	4	CH 12-0

CHANNEL-0 COMBINATION NOT PINNED WITH MATRIX JUMPERS CONSTITUTE CONFLICTING MOVEMENTS. TO PROGRAM, CIRCLE PERMISSIVE COMBINATIONS AND INSTALL JUMPERS ON CORRESPONDING PINS ON THE PROGRAM CARD

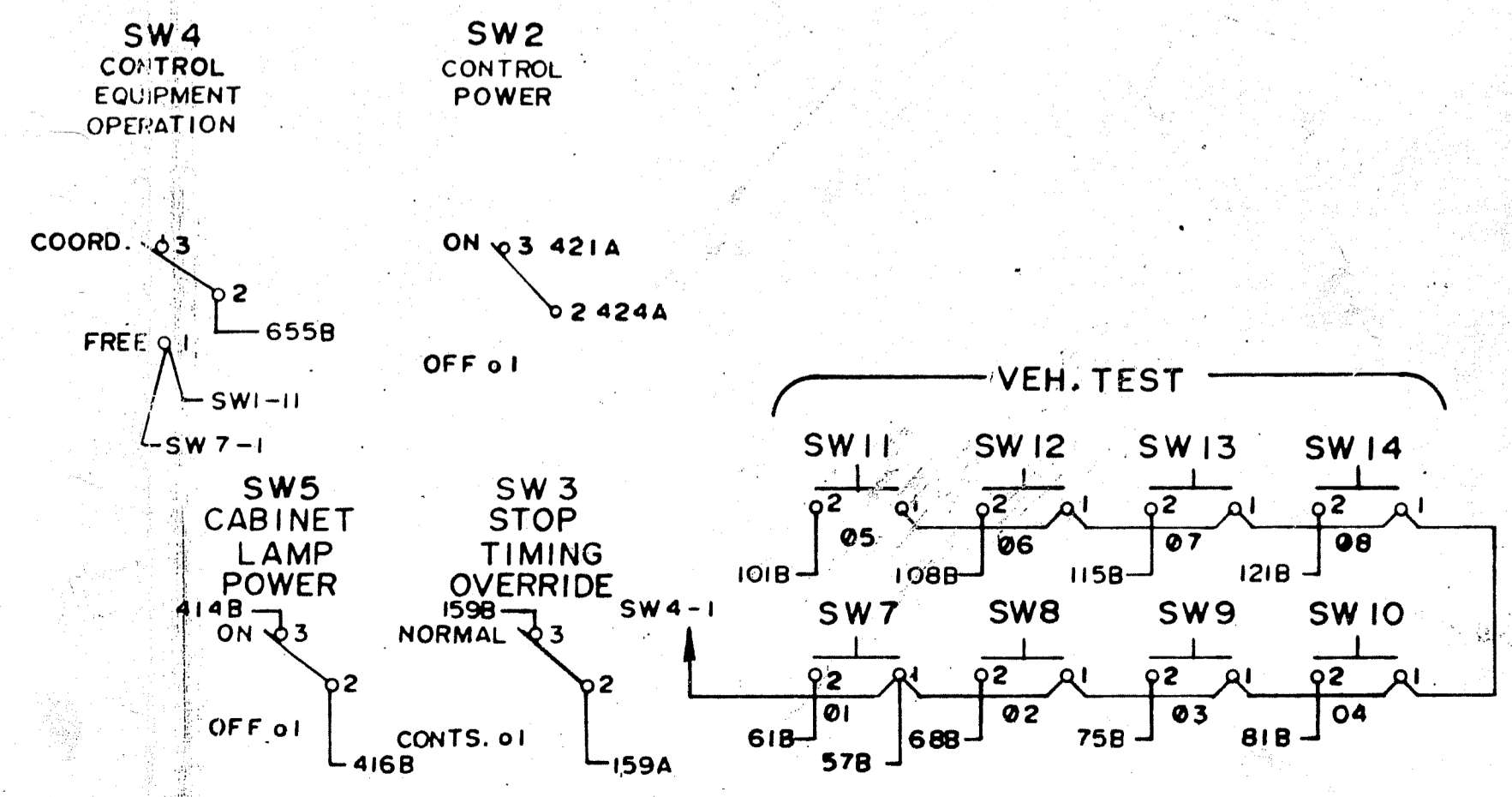
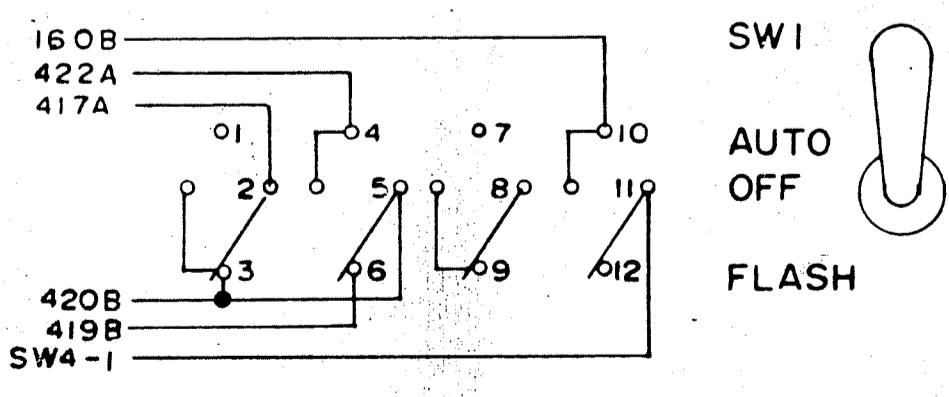


\* DOES NOT INCLUDE CONTROL EQUIPMENT HARNESS

CABINET WIRING FUNCTIONAL COLOR CODES

COLOR	FUNCTIONAL *
BLACK	AC +
WHITE	AC NEUTRAL
GREEN	EARTH GROUND
RED	CONFLICT MONITOR WIRING
BLUE	
YELLOW	INTERCONNECT
ORANGE	
PURPLE	CALLING DETECTOR

POLICE PANEL (REAR VIEW)



VEHICLE SIGNALS

SIGNAL	TERMINAL		
	G	Y	R
2-1	207	208	209
2-2	210	211	212
2-3	207	208	209
6-1	231	232	233
6-2	234	235	236
6-3	231	232	233

VEH DETECTORS

DET	TERMINAL	
	WK	DW
D2-1	301	302
D2-2	304	305
D6-1	313	314
D6-2	316	317

PED SIGNALS

SIGNAL	TERMINAL	
	WK	DW
P4-1	255	256
P4-2	259	260

PED PUSHBUTTONS

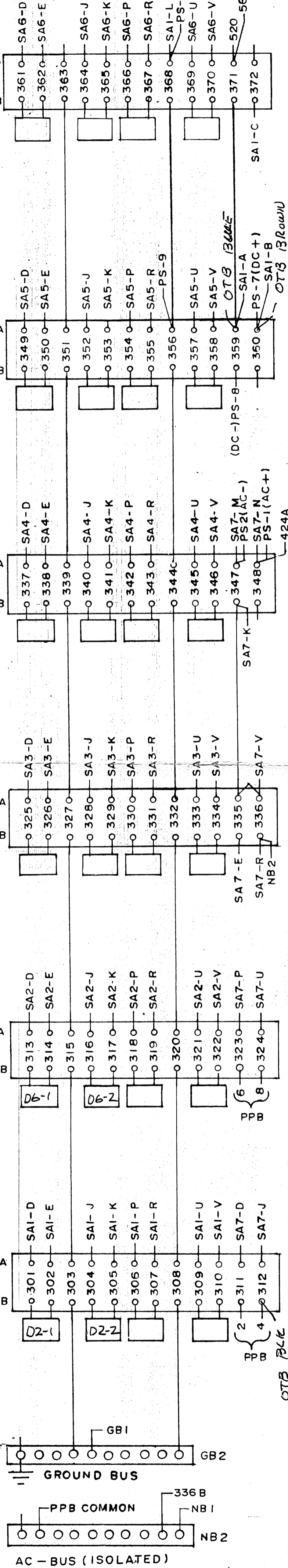
PPB	TERMINAL	
	WK	DW
P84-1, 2	312	

main st. @ Franklin Elem.

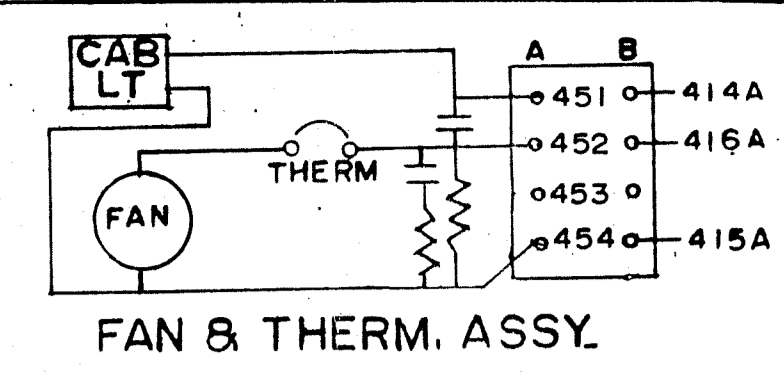
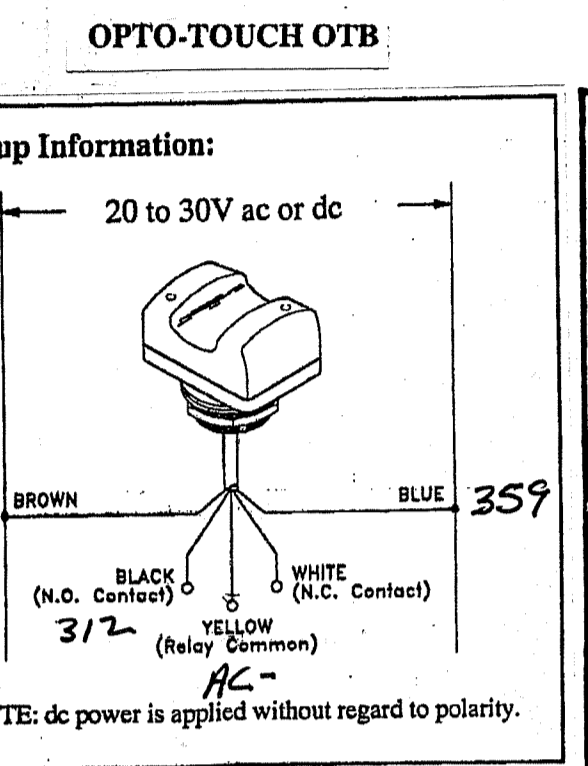
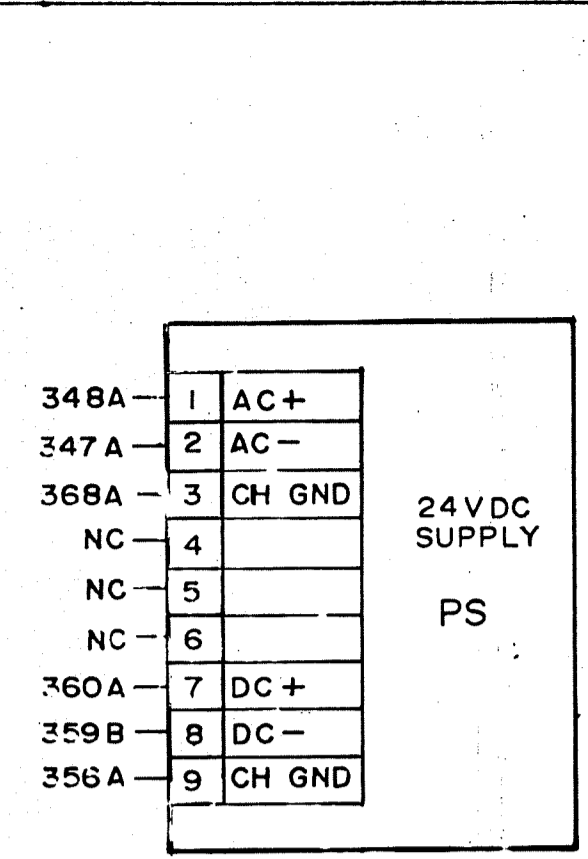
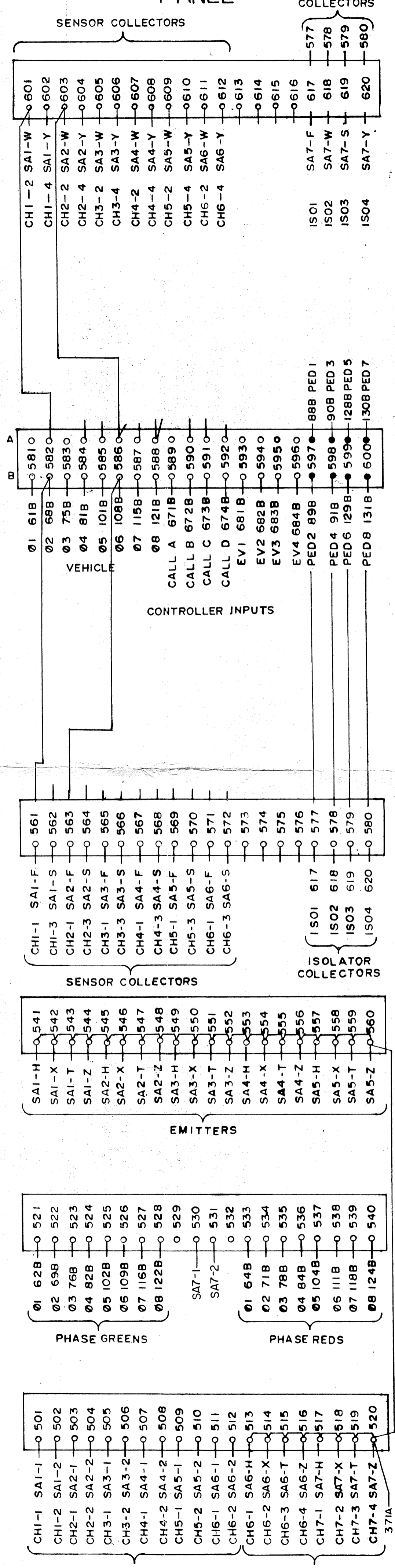
MINNESOTA DEPARTMENT OF TRANSPORTATION  
80 CABINET FACILITY FOR MINNESOTA MICROTRONICS  
TYPE 800 CONTROLLER  
SUPPLIED BY RIDDLE CONTROL PRODUCTS INC.

ENGINEER R.R.	REV	ORDER	DATE
DRAFTSMAN D.W.L.	REV	DWG NO. 60-088	4-1
APPR.	MNDOT		PAGE 1

**SENSOR FIELD PANEL**



**SENSOR PROGRAM PANEL**



**DETECTOR RACK CARD EDGE HARNESS-TYPICAL**  
(ONE HARNESS FOR EACH FOUR CHANNEL POSITION)

CARD EDGE PIN	HARNESS PIN	COLOR CODE	FUNCTION
1	2	WHITE / RED	CH1 TIMER INHIBIT
2	3	RED	CH2 TIMER INHIBIT
3	4	BROWN	CHI LOOP
4	5	WHITE / BROWN	CHI LOOP
5	6	WHITE / BLUE	CHI OUT (+)
6	7	BLUE	CHI OUT (-)
7	8	BLACK / RED	CH2 LOOP
8	9	BLACK / WHITE	CH2 LOOP
9	10	ORANGE	CH3 LOOP
10	11	WHITE / ORANGE	CH3 LOOP
11	12	WHITE / GREY	CH3 OUT (+)
12	13	GREY	CH3 OUT (-)
13	14	YELLOW	CH4 LOOP
14	15	WHITE / YELLOW	CH4 LOOP
15	16	WHITE / VIOLET	CH4 OUT (+)
16	17	VIOLET	CH4 OUT (-)
17	18	WHITE / GREEN	CH4 OUT (+)
18	19	WHITE / BLACK	CH4 OUT (-)

THE FOLLOWING 20 GAUGE WIRES ARE SOLDERED TO TERMINALS ON THE BACK OF THE DETECTOR RACK

Terminal	Wire Color	Function
L	GREEN	EARTH GND
M-11	WHITE	AC NEUTRAL
N-12	BLACK	120 VAC ±
B	RED	24VDC+
A	BLACK / YELLOW	24VDC-
C	BLACK / BLUE	RESET

- FUNCTIONS:**
- 1-CALL, NO EXTEND
  - 2-CALL ONLY
  - 3-EXTEND ONLY
  - 4-CALL ONLY DENS
  - 5-DLY CALL ONLY
  - 6-DLY CALL ONLY DENSITY
  - 7-DLY CALL IMMEDIATE EXTEND
  - 8-CARRY OVER
  - 9-ADVISORY
  - 10-SAMPLING
  - 11-SPECIAL-SEE NOTE

**DETECTORS AND PPB ISOLATION**

PIN TRACK HARNESS	SA-PIN	SA1 SA2 SA3 SA4 SA5 SA6 SA7							PPB ISOLATION	MODEL									
		PHASE	FUNC	DET	PHASE	FUNC	DET	PHASE			FUNC	DET	PHASE	FUNC	DET	PHASE	FUNC	DET	
1	1	CHI	2	1	2-1	6	1	6-1									2	NC	SPARE
2	2	CHI	2	2-2	6	1	6-2										4	NC	SPARE
3	3	CHI	3														6	NC	SPARE
4	4	CHI	4														8		
5	5	CHI	5														222	T-400A	
6	6	CHI	6														222		
7	7	CHI	7																
8	8	CHI	8																
9	9	CHI	9																
10	10	CHI	10																
11	11	CHI	11																
12	12	CHI	12																
13	13	CHI	13																
14	14	CHI	14																
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19	19	CHI	19																
20	20	CHI	20																

