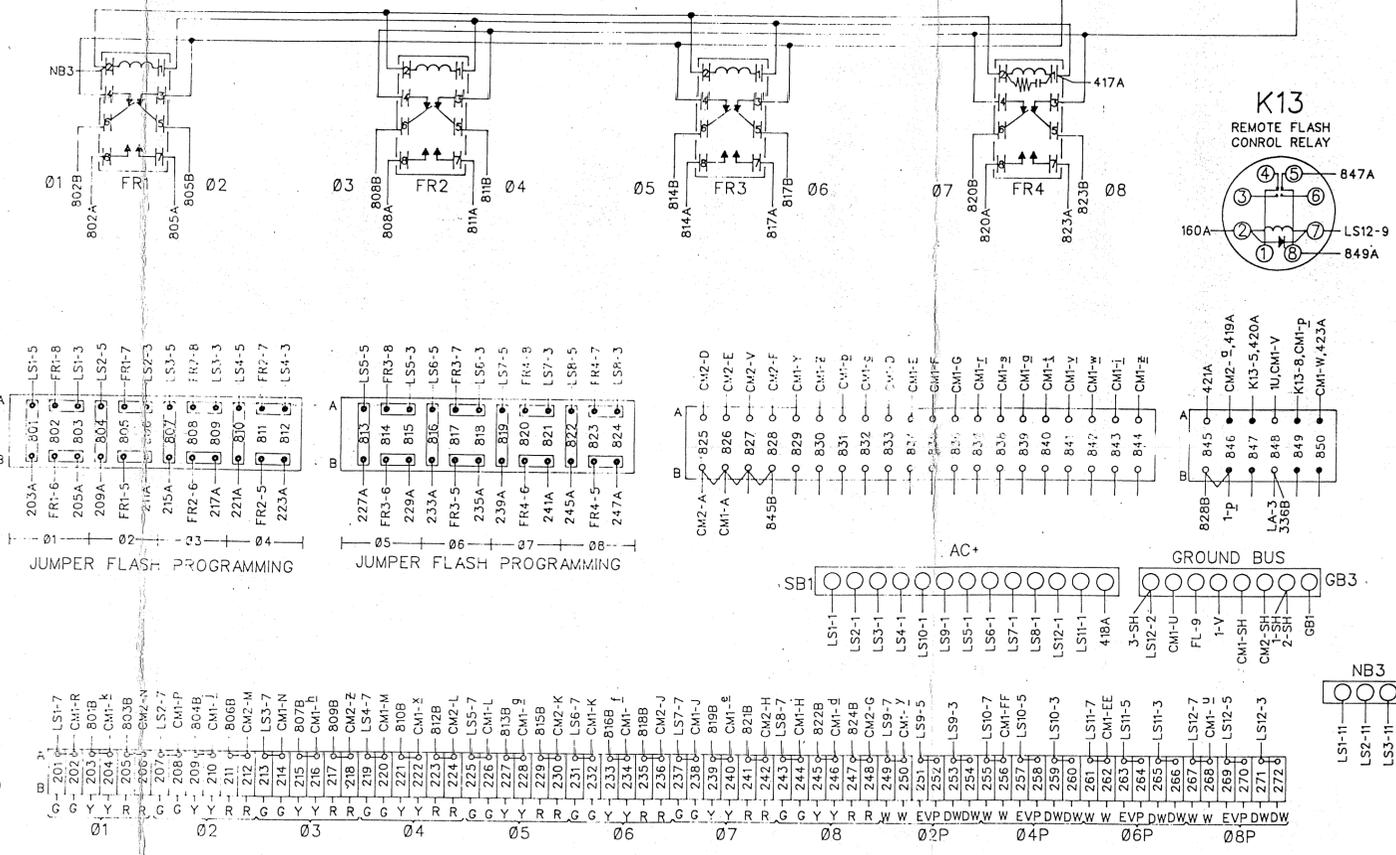


IN	PLAN	0	LS											
			1	2	3	4	5	6	7	8	9	10	11	12
GREEN / WALK	10	62A	69A	76A	82A	102A	109A	116A	122A	72A	85A	112A	125A	
YELLOW/PED CLR	8	63A	70A	77A	83A	103A	110A	117A	123A	142B	144B	146B	148B	
RED/DONT WALK	6	64A	71A	78A	84A	104A	111A	118A	124A	73A	86A	113A	126A	
GREEN / WALK	7	201A	207A	213A	219A	225A	231A	237A	243A	249A	255A	261A	267A	
YELLOW	5	801A	804A	807A	810A	813A	816A	819A	822A	251A	257A	263A	269A	
RED/DONT WALK	3	803A	806A	809A	812A	815A	818A	821A	824A	253A	259A	265A	271A	
+24 VDC	9	LS2-9	LS1-9	LS2-9	LS3-9	LS4-9	LS5-9	LS6-9	LS7-9	LS8-9	LS9-9	LS10-9	LS11-9	
CHASSIS GROUND	2	LS2-2	LS3-2	LS4-2	LS5-2	LS6-2	LS7-2	LS8-2	LS9-2	LS10-2	LS11-2	LS12-2	LS1-2	
AC COMMON	11	NB3	NB3	NB3	NB3									
115 VAC	1	SB1	SB1	SB1	SB1									

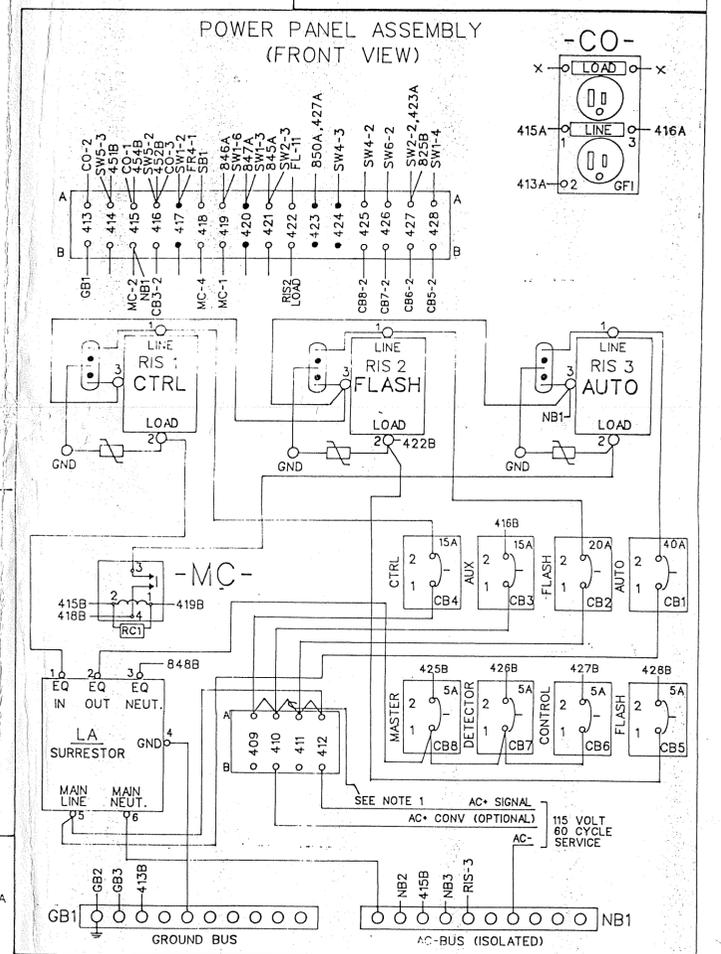


VEHICLE SIGNALS				VEH DETECTORS				PED SIGNALS				PED PUSHBUTTONS			
SIGNAL	TERMINAL		R	DET	TERMINAL		R	SIGNAL	TERMINAL		PPB	TERMINAL		PPB	
	GLTH	YLTH			G	Y			W	DK		W	DK		
2-1		207	209	1-1	313-314			P2-1	249	253	P2-1,2	311			
2-2		208	210	1-2	316-317			P2-2	250	254	P2-2	312			
2-3		207	209	2-1	301-302			P2-1	267	271	P2-1,2	311			
6-1		231	233	2-2	304-305			P2-2	268	272	P2-2	312			
6-2		232	234	6-1	306-307			P2-3	267	271	P2-3	311			
6-3	201	203	231	6-2	309-310			P2-4	268	272	P2-4	312			
6-4	202	204	232	8-1	325-326										
8-1		243	245	8-2	328-329										
8-2		244	246	8-3	327-328										
8-3		243	245	8-4	340-341										

NEMA+ 12CH CONFLICT MONITOR	
CM1	CM2
SH SHELL GROUND	GB3
A AC +1	826B
B RELAY 1 NO	825B
C RELAY 2 NC	156A
D CH 12 GRN	149A
E CH 11 GRN	833A
F CH 10 GRN	834A
G CH 9 GRN	835A
H CH 8 GRN 08	836A
I CH 7 GRN 07	244A
J CH 6 GRN 06	238A
K CH 5 GRN 05	232A
L CH 4 GRN 04	226A
M CH 3 GRN 03	220A
N CH 2 GRN 02	214A
P CH 1 GRN 01	208A
R +24 V MONITOR 11	59B
S +24 MONITOR	202A
T LOGIC GROUND	58B
U CHASSIS GROUND	55B
V AC-	848A
W RELAY 1 COMMON (AC+)	850A
X RELAY 2 COMMON (LG)	56B
Y CH 12 YEL	829A
Z CH 11 YEL	830A
a CH 10 WK	839A
b CH 10 YEL	839A
c CH 9 YEL	831A
d CH 8 YEL 08	832A
e CH 7 YEL 07	246A
f CH 6 YEL 06	240A
g CH 5 YEL 05	234A
h CH 3 YEL 03	228A
i CH 3 WK	216A
j CH 2 YEL 02	843A
k CH 1 YEL 01	210A
l CONT. VOLT. MON.	204A
m +24V MONITOR INHIBIT	54B
n RELAY 1 NC	149B
o RELAY 2 NC	849A
p RELAY 1 NO	157A
r CH 12 WK	837A
s CH 11 WK	838A
t CH 9 WK	840A
u CH 8 WK 08	268A
v CH 7 WK	841A
w CH 5 WK	842A
x CH 4 YEL 04	222A
y CH 2 WK 02	250A
z CH 1 WK	844A
AAL SPARE 1	150A
BBL RESET	152B
CCL CAB INTERLOCK A	151B
DDL CAB INTERLOCK B	150B
EEL CH 6 WK 06	262A
FFL CH 4 WK 04	256A
GGL SPARE 2	151A
HHL SPARE 3	152A

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				CH5-0	5
1-7	2-8	3-9	4-10	5-11	6-12					CH6-0	6
1-8	2-9	3-10	4-11	5-12						CH7-0	7
1-9	2-10	3-11	4-12							CH8-0	8
1-10	2-11	3-12								CH9-0	
1-11	2-12									CH10-0	
1-12										CH11-0	
										CH12-0	

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



NOTES

- IF A SIGNAL SERVICE CABINET IS USED REMOVE JUMPER 410A-411A FOR CONV AC.
- IF EVP HEADS ARE INSTALLED JUMPER 363A TO 365A AND / OR 375A TO 377A.

EVP TYPICAL SENSOR WIRE COLORS

SIGNAL	DC(+)	CHD
YEL	GRN	BLU
CLR	RED	BLK
WHT	RED	BLK

EVP VERIFY LIGHTS

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

REV. STATUS OF SHEETS

SHEET	1	2	3
REV	0	0	0
DRAWN BY-	ESU		
5/11/92	REV-		

MINNESOTA DEPARTMENT OF TRANSPORTATION
 CONTR. () LOAD RELAY, NEMA+ CONFLICT MONITOR, () LOOP DETECTORS
 NEMA FLASHER
 R-CAB 1990 DESIGN BTP 5976
 DRAWING NO. S92-BROWNXXX8R-
 Sheet No. 1 of 3 Sheets

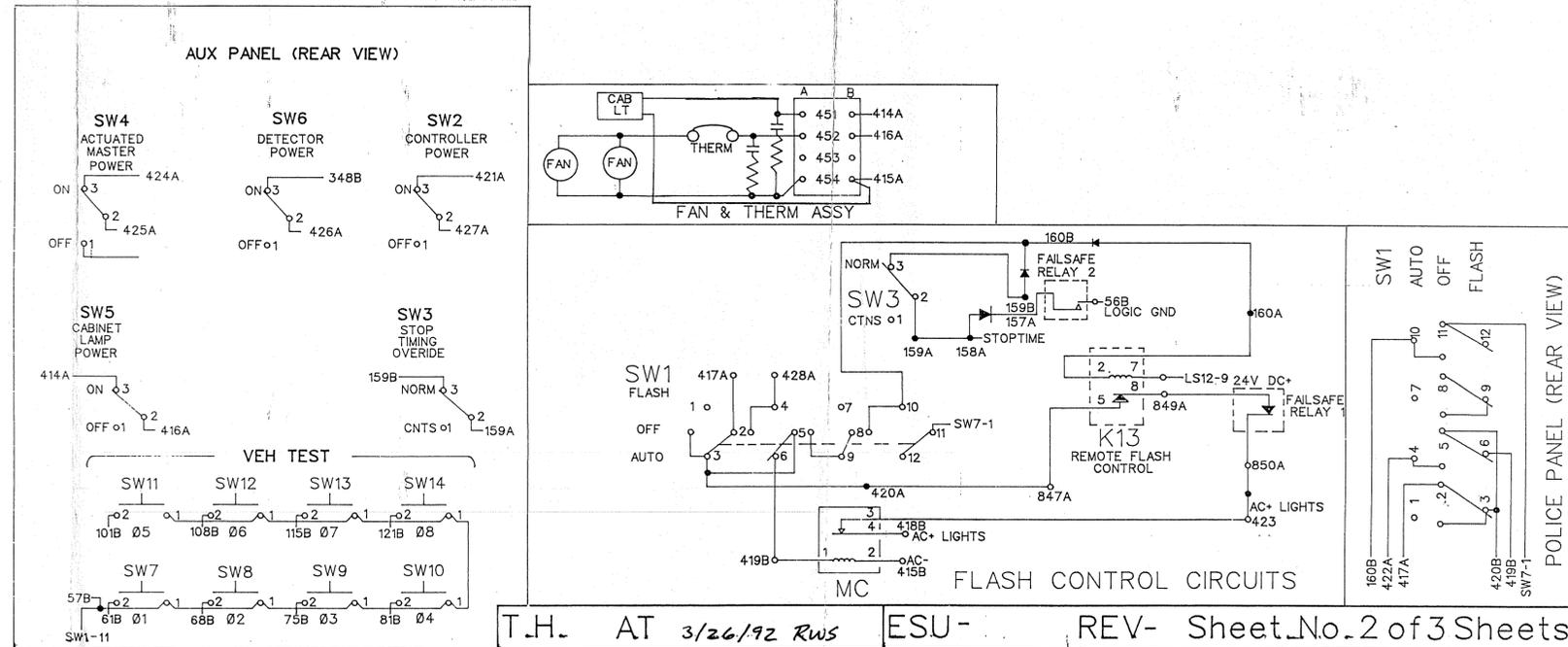
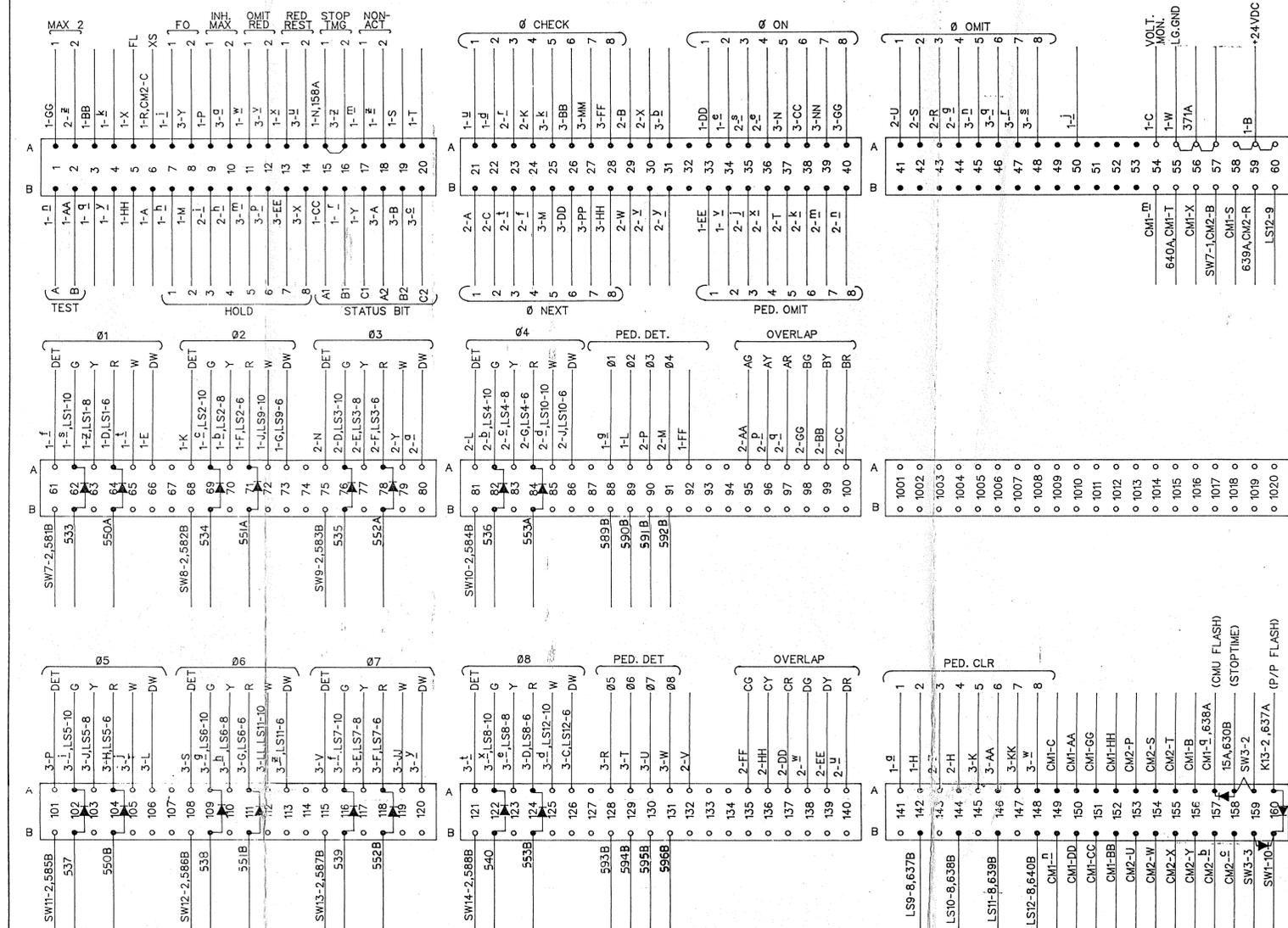
C.S.A.H. 8 (OSBORNE RD) AND THE UNITY HOSPITAL ENTRANCE
 C.P. 93-26-08
 FRIDLEY, MINNESOTA

Shop

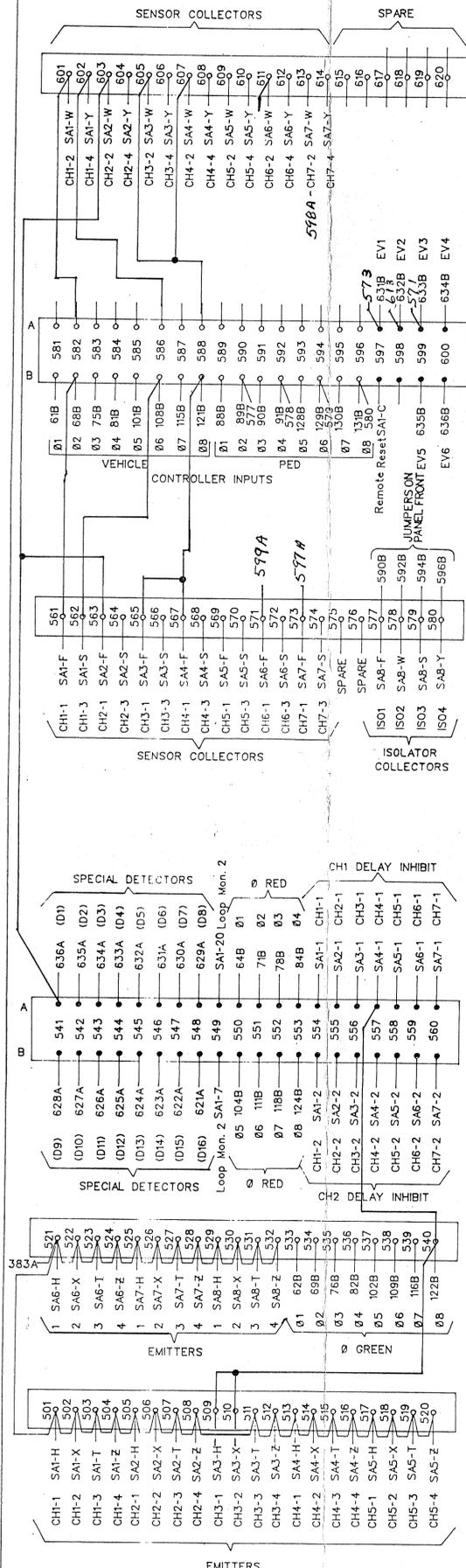
REV DESCRIPTION

CONTROLLER INTERFACE PANEL

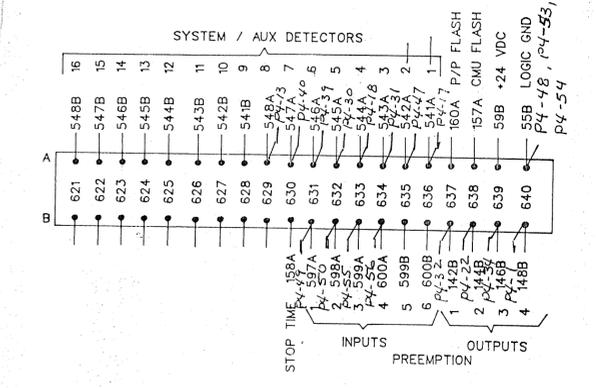
1	2	3
SHL SHELL GROUND	SHL SHELL GROUND	SHL SHELL GROUND
AL RESV.	AL 01 PHASE NEXT	AL STATUS BIT A2
BL 24VDC*	BL SPARE 1	BL STATUS BIT B2
CL VOLTAGE MONITOR	CL 02 PHASE NEXT	CL 08 DWK
DL 01 RED	DL 03 GRN	DL 08 RED
EL 01 DWK	EL 03 YEL	EL 07 YEL
FL 02 RED	FL 04 RED	FL 07 RED
GL 02 DWK	GL 04 PCL	GL 06 RED
HL 02 PCL	HL 04 PCL	HL 05 RED
JL 02 WK	JL 04 DWK	JL 05 YEL
KL 02 VEH DET	KL 04 CHECK	KL 05 PCL
LL 02 PED DET	LL 04 VEH DET	LL 05 DWK
ML 02 HOLD	ML 04 PED DET	ML 05 PHASE NEXT
NL STOP TIMING 1	NL 03 VEH DET	NL 05 PHASE ON
PL INHIBIT MAX TERM 1	PL 03 PED DET	PL 05 VEH DET
R EXTERNAL START	R 03 PHASE OMIT	R 05 PED DET
S INTERVAL ADVANCE	S 02 PHASE OMIT	S 06 VEH DET
T INDICATOR LAMP CONT	T 05 PED OMIT	T 06 PED DET
UL AC- COMMON	UL 01 PHASE OMIT	UL 07 PED DET
V CHASSIS GROUND	VL PED RECYCLE 2	VL 07 VEH DET
W LOGIC GROUND	WL SPARE 2	WL 08 PED DET
X FLASH LOGIC OUT	XL SPARE 3	XL 08 HOLD
Y STATUS BIT C1	YL 03 WK	YL FORCE OFF 2
Z 01 YEL	ZL 03 PCL	ZL STOP TIME 2
a 01 PCL	aL 03 DWK	aL INHIBIT MAX TERM 2
b 02 YEL	bL 04 GRN	bL SPARE 1
c 02 GRN	cL 04 YEL	cL STATUS BIT C2
d 02 CHECK	dL 04 WALK	dL 05 WK
e 02 PHASE ON	eL 04 PHASE ON	eL 08 YEL
f 01 VEH DET	fL 04 PHASE NEXT	fL 07 GRN
g 01 PED DET	gL 04 PHASE OMIT	gL 06 GRN
h 01 HOLD	hL 04 HOLD	hL 06 YEL
i FORCE OFF 1	iL 03 HOLD	iL 05 GRN
j EXT MIN RECALL ALL 0	jL 03 PED OMIT	jL 05 WK
k MAN. CONTROL ENABLE	kL 06 PED OMIT	kL 05 CHECK
m CALL TO NON-ACT 1	mL 07 PED OMIT	mL 05 HOLD
n TEST INPUT A	nL 08 PED OMIT	nL 05 PHASE OMIT
p AC CONTROL	pL OL A YEL	pL 06 HOLD
q SPARE 1	qL OL A RED	qL 06 PHASE OMIT
r STATUS BIT B1	rL 03 CHECK	rL 07 PHASE OMIT
s 01 GRN	sL 03 PHASE ON	sL 08 PHASE OMIT
t 01 WK	tL 03 PHASE NEXT	tL 08 VEH DET
u 01 CHECK	uL OL D RED	uL RED REST MODE 2
v 02 PED OMIT	vL SPARE 4	vL OMIT RED CLR 2
w OMIT RED CLR	wL OL D GRN	wL 08 PCL
x RED REST MODE 1	xL 04 PED OMIT	xL 08 GRN
y SPARE 2	yL SPARE 5	yL 07 DWK
z CALL TO NON-ACT II	zL MAX 2 SELECT 2	zL 07 DWK
AA TEST INPUT B	AA OL A GRN	AA OL PCL
BB WALK REST MODIFIER	BB OL B YEL	BB OL CHECK
CC STATUS BIT A1	CC OL B RED	CC OL PHASE ON
DD 01 PHASE ON	DD OL C RED	DD OL PHASE NEXT
EE 01 PED OMIT	EE OL D YEL	EE OL HOLD
FF PED RECYCLE 1	FF OL C GRN	FF OL CHECK
GG MAX 2 SELECT	GG OL B GRN	GG OL PHASE ON
HH SPARE 3	HH OL C YEL	HH OL PHASE NEXT
		JJ OL 07 WK
		KK OL 07 PCL
		LL OL 06 WK
		MM OL 07 CHECK
		NN OL 07 PHASE ON
		PP OL 07 PHASE NEXT



SENSOR PROGRAM PANEL



4th CONNECTOR TERMINATION BLOCK



- FUNCTIONS:**
- 1 - CALL AND EXTEND
 - 2 - CALL ONLY
 - 3 - EXTEND ONLY
 - 4 - CALL ONLY DENS
 - 5 - DLY CALL ONLY
 - 6 - DLY CALL ONLY DENSITY
 - 7 - DLY CALL IMMED EXTEND
 - 8 - CARRY OVER
 - 9 - ADVISORY
 - 10 - CALL 01 DURING 08 GREEN
 - 11 - EXTEND 01 AND 06

348A	1	AC+
347A	2	AC-
368A	3	CH GND
NC	4	
NC	5	
NC	6	
360A	7	DC+
359B	8	DC-
356A	9	CH GND

PS
24VDC
POWER SUPPLY

DETECTORS AND PPB ISOLATION

PIN / TRACK HARNESS	SA-PIN	SA1				SA2				SA3				SA4				SA5				SA6				SA7				SA8											
		PHASE	FUNC	DET	MODEL																																				
A	DC GROUND																																								
B	24V DC																																								
C	REMOTE RESET																																								
D-4	CH 1 LOOP																																								
E-5	CH 1 LOOP																																								
F	CH 1 OUTPUT (+)																																								
H	CH 1 OUTPUT (-)																																								
J-8	CH 2 LOOP																																								
K-9	CH 2 LOOP																																								
L	CHASSIS GROUND																																								
M	SPARE																																								
N	SPARE																																								
P-13	LOOP CH 3																																								
R-14	LOOP CH 3																																								
S	CH 3 OUTPUT (+)																																								
T	CH 3 OUTPUT (-)																																								
U-17	CH 4 LOOP																																								
V-18	CH 4 LOOP																																								
W	CH 2 OUTPUT (+)																																								
X	CH 2 OUTPUT (-)																																								
Y	CH 4 OUTPUT (+)																																								
Z	CH 4 OUTPUT (-)																																								
1	CH 1 GREEN																																								
2	CH 2 GREEN																																								
7	LOOP MONITOR 1																																								
20	LOOP MONITOR 2																																								