

ASC/2S-2100 CONTROLLER WITH:	LEGEND
■ CONFIGURATION EEPROM 32790C1440 ■ SOFTWARE: V1.72 □ SPECIAL SOFTWARE:SEE BELOW FUNCTION □ OVERLAPS □ IN EEPROM □ KEYBOARD ENTERED □ ANALOG TELEMETRY MODULE: 32825G1 □ F/O TELEMETRY MODULE: 33525G1 □ TEST INPUT A = □ TEST INPUT B =	BIU() BUS INTERFACE UNIT BU() C/C, BIU () CB() CIRCUIT BREAKER () C/C CONNECTING CABLE CCA CONTROLLER CABLE "A" CDP C/C, DR POWER CMA MMU/CMU CABLE "A" CMB MMU/CMU CABLE "B" CPO C/C PRE-EMPT OUTPUTS CPP C/C PRE-EMPT POWER DR DETECTOR RACK DS() DOOR SWITCH () FL() FLASHER () FR() FLASH XFER. RELAY LS() LOAD SWITCH MC MERCURY CONTACTOR MP MAIN PANEL PAP POWER-AUX PANEL PSP CAB. PWR. SUPPLY SA SURGE ARRESTOR TB-() TERM. BLOCK ()

FLASHER	
PIN	FUNCTION
7	CIRCUIT #1
8	CIRCUIT #2
9	CHASSIS GND
10	AC COMMON
11	115 VAC
12	-----

LOAD SWITCH	
PIN	FUNCTION
1	115 VAC
2	CHASSIS GND
3	RED/DW OUTPUT
4	-----
5	YEL OUTPUT
6	RED/DW INPUT
7	GRN/W OUTPUT
8	YEL INPUT
9	+24 VDC
10	GRN/W INPUT
11	AC COMMON
12	-----

① 2.2K 10W

3 USE ONLY COPPER CONDUCTORS FOR FIELD AND SERVICE CONNECTIONS.

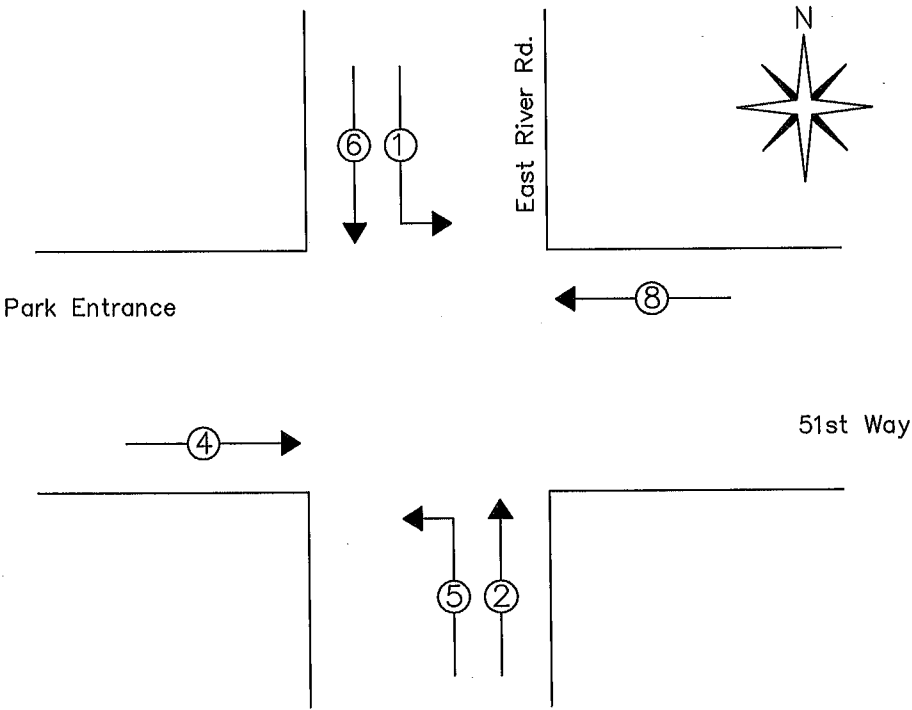
2 CONNECT A.C. SERVICE TO TERMINAL BLOCK 501 (LINE), 502 (NEUTRAL) AND GB2 (EARTH) ON RIGHT SIDEWALL OF CABINET.

① INSTALL 2.2K, 10 WATT LOAD RESISTORS BETWEEN PINS 7 AND 11 ON LOAD SWITCHES 9, 10, 11 & 12.

NOTES: UNLESS SPECIFIED OTHERWISE

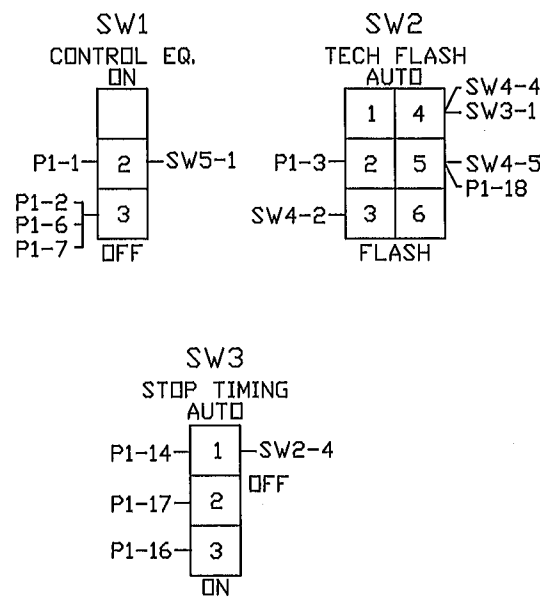
MAIN PANEL PLUG-IN REQUIREMENTS									
BIU2 T&F	BIU3 T&F	LS9 PED 2 BEACONS	LS10 PED 4 BEACONS	LS11 PED 6 BEACONS	LS12 PED 8 BEACONS	LS13 OL"A"	LS14 OL"B"	LS15 OL"C"	LS16 OL"D"
BIU1 T&F	LS1 VEH 1	LS2 VEH 2	LS3 VEH 3	LS4 VEH 4	LS5 VEH 5	LS6 VEH 6	LS7 VEH 7	LS8 VEH 8	FL1 □ 1CKT ■ 2CKT
FR1 L R V1 V5	FR2 L R V2 V6	FR3 L R V3 V7	FR4 L R V4 V8	FR5 L R A C	FR6 L R B D	K1 LS 24V CONT.			
■ DENOTES TYPE OF OPERATION AND/OR WHERE PLUG-IN IS REQUIRED. L = LEFT, R = RIGHT. ⊠ DENOTES WHERE "UNUSED RED" JUMPER PART NUMBER 32448G1 IS REQUIRED. INSTALL BETWEEN PINS 1 & 3 FOR LOAD SWITCH OR PINS 6 & 8 AND 5 & 7 FOR FLASH TRANSFER RELAY.							FLASH: □ ø2&6 YELLOW, ALL OTHERS RED. ■ ALL RED. ■ RELAYS DE-ENERGIZED FOR FLASH. □ RELAYS ENERGIZED FOR FLASH.		

SHEET 1 OF 11

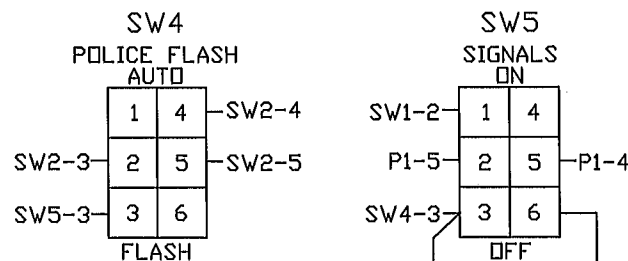


DESIGNER G.V. T.C.C.	DATE 02/03/97	 ECONOLITE CONTROL PRODUCTS INC.		 TRAFFIC CONTROL CORPORATION		5653 MEMORIAL AVE. OAK PARK HTS, MN 55082	
DRAWN MA TCC	6/9/04	CABINET SPECIFICATION: TS2TYPE1 2004 ANOKA COUNTY					CONTROLLER
CABINET SIZE		CUSTOMER: ANOKA COUNTY HIGHWAY DEPARTMENT					FLASHER
INSPECTED		INTERSECTION: EAST RIVER ROAD at 51ST AVENUE					SW.PACKS
APPROVED		LOCATION: SYSTEM:					
CUSTOMER P.O.	INSTALLED BY	SALES ORDER NO.		SIZE B	DRAWING #TS20216PG INTERC		

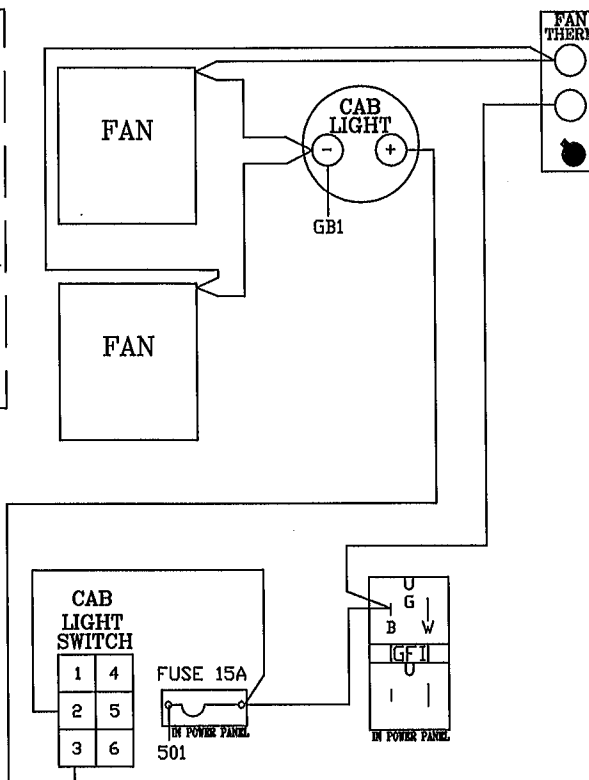
AUXILLARY SWITCH PANEL



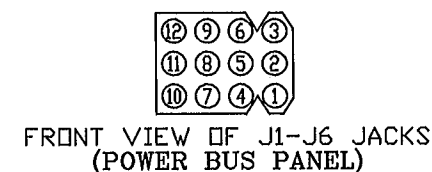
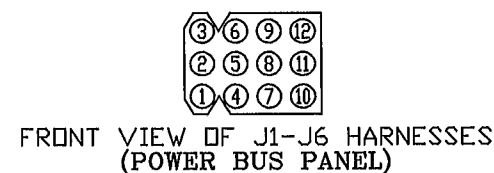
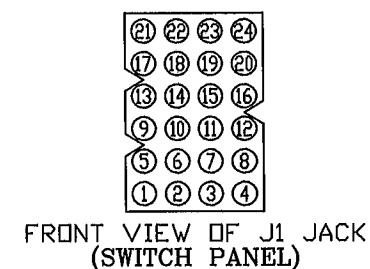
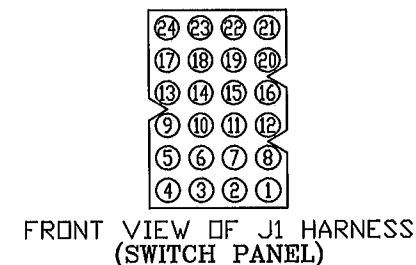
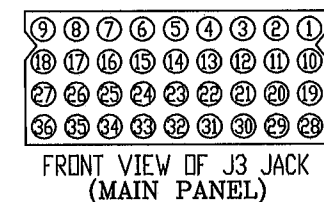
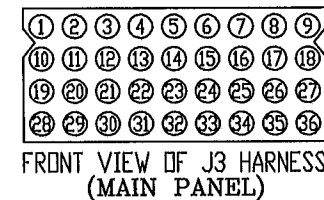
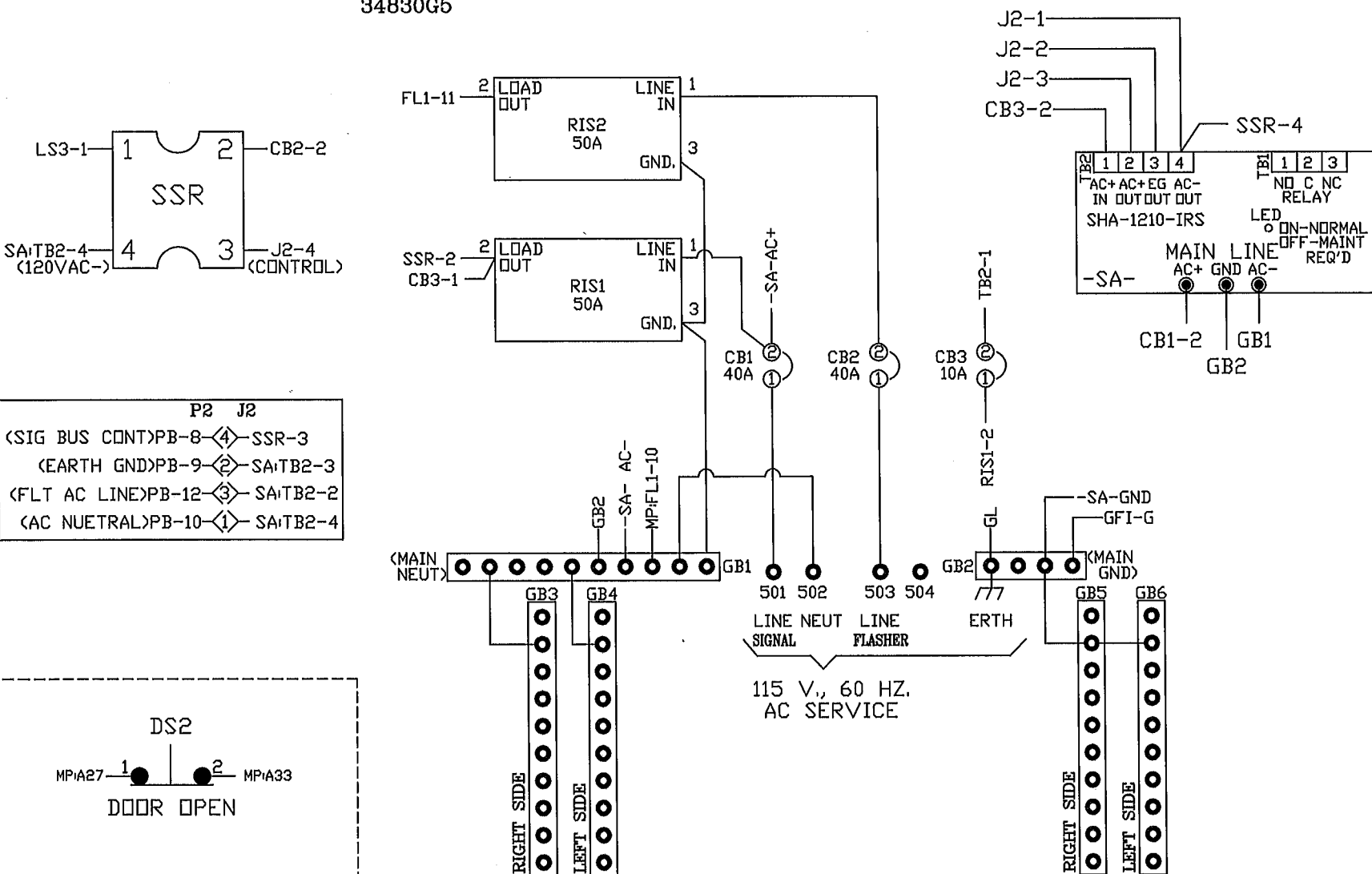
POLICE SWITCH PANEL



UNDERSHELF LIGHT
 TB2-12(120VAC+)
 TB2-10(120VAC-)



POWER/AUX PANEL (PAP) 34830G5

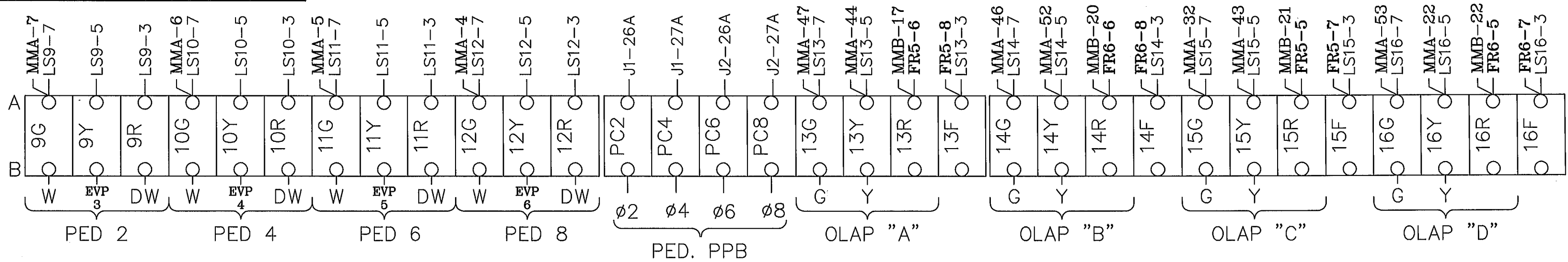


J3	P1
J3-36 → 1	FILTER AC LINE (OUT) P1-1 → SW1-2
MMB-1 → 2	SWITCHED AC LINE (IN) P1-2 → SW1-3
MMA-37 → 3	FLASH CONTROL BUS (OUT) P1-3 → SW2-3
K1-10 → 4	SIGNAL BUS CONTROL (IN) P1-4 → SW5-5
FR6-2 → 5	FLASH RELAY CONTROL (IN) P1-5 → SW5-2
MMB-2 → 6	START DELAY AC BUS (IN) P1-6 → SW1-3
MMA-20 → 7	MMU FLASH CONTROL BUS (IN) P1-7 → SW1-3
→ 8	SPARE P1-8 → ----
→ 9	SPARE P1-9 → ----
→ 10	SPARE P1-10 → ----
→ 11	SPARE P1-11 → ----
→ 12	SPARE P1-12 → ----
A-39 → 13	OPT-MANUAL CONT. ENABLE (IN) P1-13 → ----
A-35 → 14	LOGIC GROUND P1-14 → SW3-1
A-40 → 15	OPT-INTERVAL ADVANCE (IN) P1-15 → ----
A-31 → 16	MMU STOP TIME (OUT) P1-16 → SW3-3
A-30 → 17	CONTROLLER STOP TIME (IN) P1-17 → SW3-2
A-32 → 18	LOCAL FLASH STATUS (IN) P1-18 → SW2-5
A-38 → 19	OPT-COORD FREE (IN) P1-19 → ----
A-33 → 20	OPT-ALARM 1 (IN) P1-20 → ----
A-34 → 21	OPT-ALARM 2 (IN) P1-21 → ----
K1-9 → 22	OPT-LOADSWITCH TEST (IN) P1-22 → ----
B-3 → 23	MMU 24V MON. 2 (IN) P1-23 → ----
B-4 → 24	+24 VDC P1-24 → ----

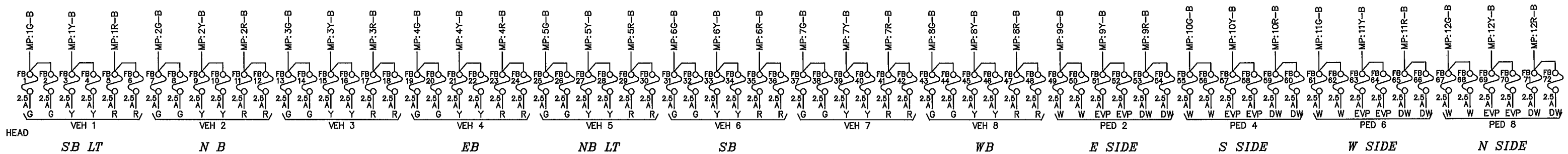
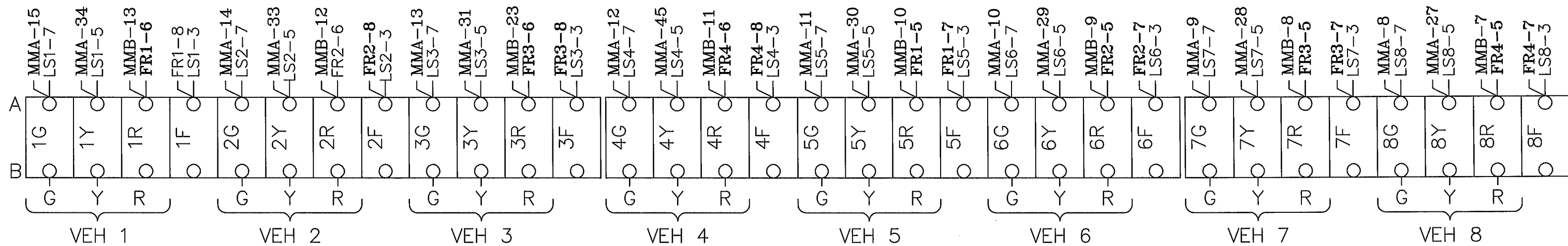
J3	J1
A-35 → 25	LOGIC GROUND J1-1 → TB1-1
K1-11 → 26	+24 VDC (IN) J1-2 → TB1-2
→ 27	---- J1-3 → TB1-3
B-5 → 28	MMU FAULT MONITOR (IN) J1-4 → TB1-4
J1-31B → 29	LINE FREQ. REFERENCE (IN) J1-5 → TB1-5
→ 30	---- J1-6 → TB1-6
J1-27B → 31	+12 VAC (IN) J1-7 → TB1-7
K1-10 → 32	SIGNAL BUS CONTROL (IN) J1-8 → TB1-8
→ 33	---- J1-9 → TB1-9
K1-2 → 34	FILTERED AC NEUTRAL (IN) J1-10 → TB1-10
MMB-18 → 35	CONT. EQUIP. AC LINE (OUT) J1-11 → TB1-11
J3-1 → 36	FILTERED AC LINE (IN) J1-12 → TB1-12

CONFIRMATION BEACONS

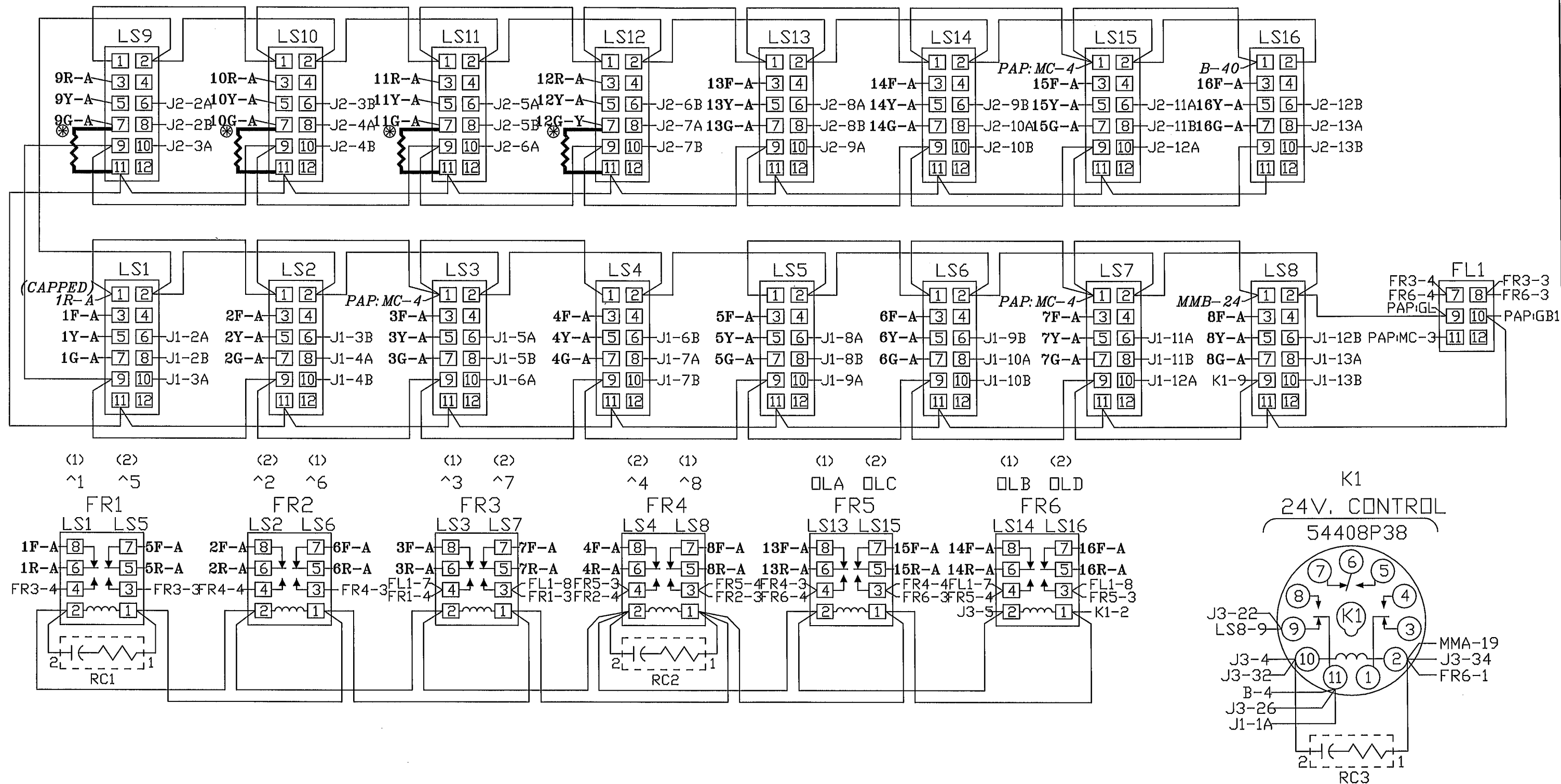
EVP 3 = 1-6
EVP 4 = 2-5
EPA 5 = 4
EVP 6 = 8



(P.B. COMMON TO GB1)



①
2.2K
10W

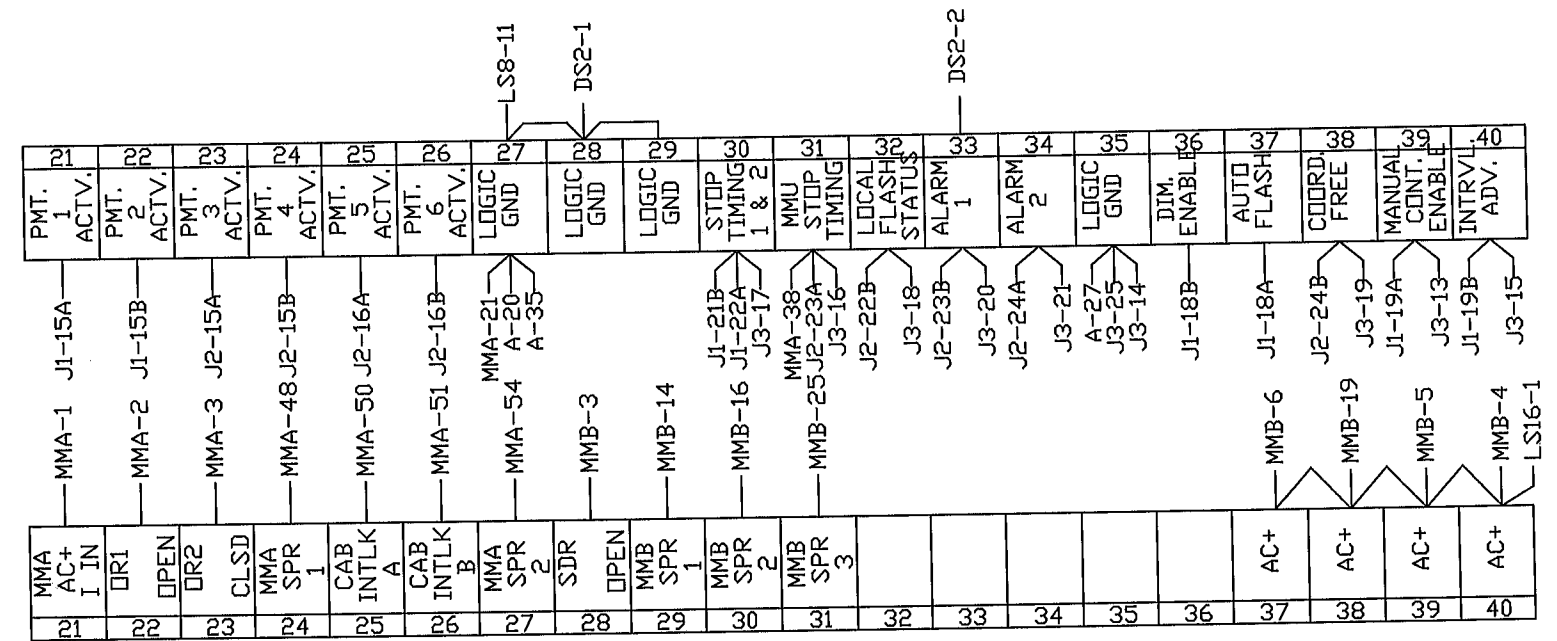
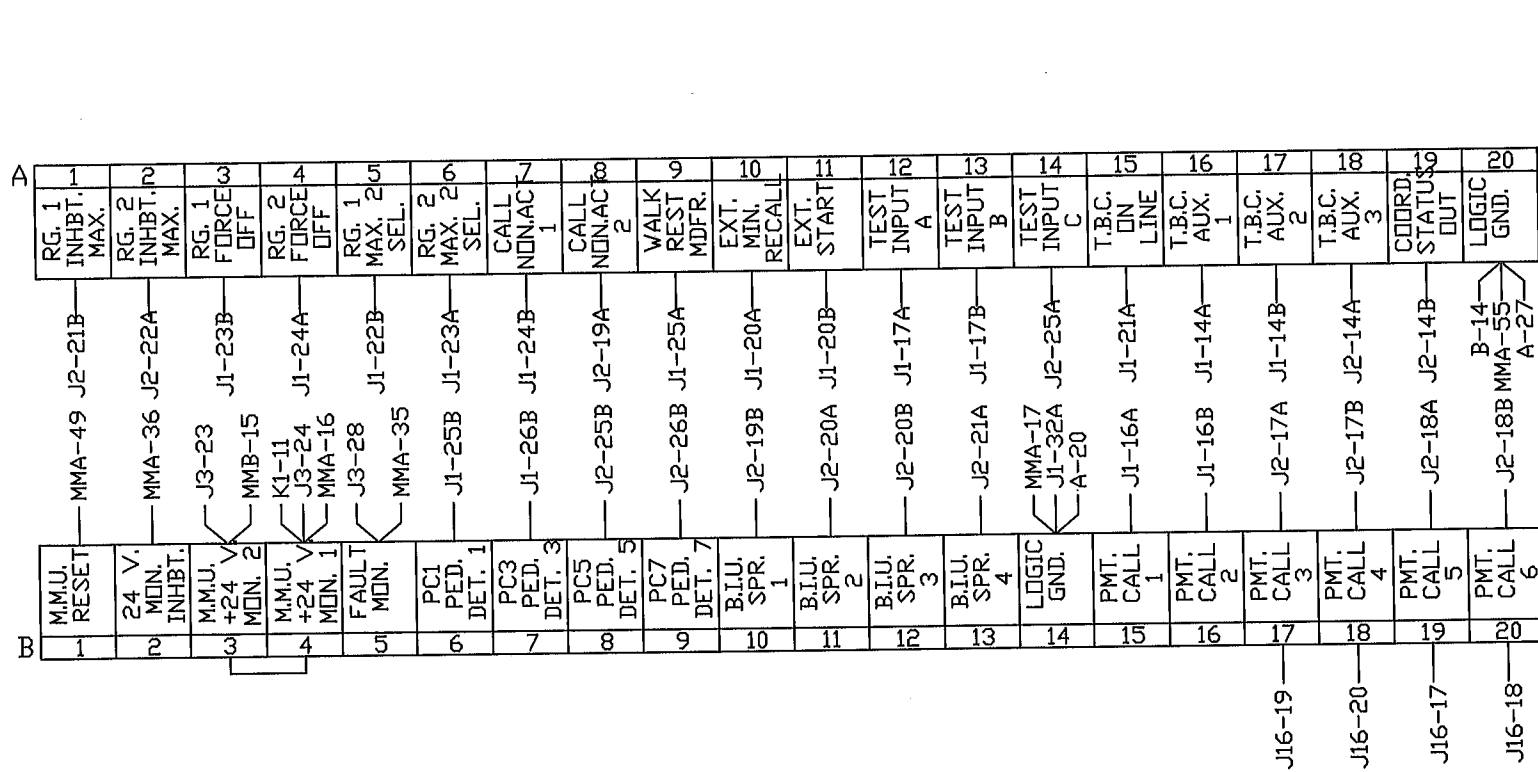


LOADBAY AND FLASH RELAY'S

SHEET 4 OF 11

SIZE
B

#1 at 51st Ave.



INTERFACE TERMINAL BLOCKS

J1 BIU #1			J2 BIU #2		
PIN	FUNCTION	TO	PIN	FUNCTION	TO
1A	+24 VDC	K1-11	1A	+24 VDC	J2-1B
1B	+24 VDC	J2-1B	1B	+24 VDC	J1-1B
2A	LS1 RED	LS1-6	2A	LS9 RED	LS9-6
2B	LS1 YELLOW	LS1-8	2B	LS9 YELLOW	LS9-8
3A	LS1 GREEN	LS1-10	3A	LS9 GREEN	LS9-10
3B	LS2 RED	LS2-6	3B	LS10 RED	LS10-6
4A	LS2 YELLOW	LS2-8	4A	LS10 YELLOW	LS10-8
4B	LS2 GREEN	LS2-10	4B	LS10 GREEN	LS10-10
5A	LS3 RED	LS3-6	5A	LS11 RED	LS11-6
5B	LS3 YELLOW	LS3-8	5B	LS11 YELLOW	LS11-8
6A	LS3 GREEN	LS3-10	6A	LS11 GREEN	LS11-10
6B	LS4 RED	LS4-6	6B	LS12 RED	LS12-6
7A	LS4 YELLOW	LS4-8	7A	LS12 YELLOW	LS12-8
7B	LS4 GREEN	LS4-10	7B	LS12 GREEN	LS12-10
8A	LS5 RED	LS5-6	8A	LS13 RED	LS13-6
8B	LS5 YELLOW	LS5-8	8B	LS13 YELLOW	LS13-8
9A	LS5 GREEN	LS5-10	9A	LS13 GREEN	LS13-10
9B	LS6 RED	LS6-6	9B	LS14 RED	LS14-6
10A	LS6 YELLOW	LS6-8	10A	LS14 YELLOW	LS14-8
10B	LS6 GREEN	LS6-10	10B	LS14 GREEN	LS14-10
11A	LS7 RED	LS7-6	11A	LS15 RED	LS15-6
11B	LS7 YELLOW	LS7-8	11B	LS15 YELLOW	LS15-8
12A	LS7 GREEN	LS7-10	12A	LS15 GREEN	LS15-10
12B	LS8 RED	LS8-6	12B	LS16 RED	LS16-6
13A	LS8 YELLOW	LS8-8	13A	LS16 YELLOW	LS16-8
13B	LS8 GREEN	LS8-10	13B	LS16 GREEN	LS16-10
14A	TBC AUX 1	A-16	14A	TBC AUX 3	A-18
14B	TBC AUX 2	A-17	14B	COORD. STATUS	A-19
15A	PMT ACT 1	A-21	15A	PMT ACT 3	A-23
15B	PMT ACT 2	A-22	15B	PMT ACT 4	A-24
16A	PMT CALL 1	B-15	16A	PMT ACT 5	A-25
16B	PMT CALL 2	B-16	16B	PMT ACT 6	A-26
17A	TEST A	A-12	17A	PMT CALL 3	B-17
17B	TEST B	A-13	17B	PMT CALL 4	B-18
18A	AUTO FLASH	A-37	18A	PMT CALL 5	B-19
18B	DIM. ENABLE	A-36	18B	PMT CALL 6	B-20
19A	MANUAL CONT.	A-39	19A	CNA 2	A-8
19B	INT. ADVANCE	A-40	19B	SPARE 1	B-10
20A	EXT. MIN. RECALL	A-10	20A	SPARE 2	B-11
20B	EXT. START	A-11	20B	SPARE 3	B-12
21A	TBC ONLINE	A-15	21A	SPARE 4	B-13
21B	STOP TIME (1)	A-30	21B	INHIBIT MAX (1)	A-1
22A	STOP TIME (2)	A-30	22A	INHIBIT MAX (2)	A-2
22B	MAX. 2 (1)	A-5	22B	LOCAL FLASH	A-32
23A	MAX. 2 (2)	A-6	23A	MMU FLASH	A-31
23B	FORCE OFF (1)	A-3	23B	ALARM 1	A-33
24A	FORCE OFF (2)	A-4	24A	ALARM 2	A-34
24B	CNA 1	A-7	24B	COORD FREE IN	A-38
25A	WALK REST MOD.	A-9	25A	TEST C	A-14
25B	PED. ISO. 1	B-6	25B	PED. ISO. 5	B-8
26A	PED. ISO. 2	PC2-A	26A	PED. ISO. 6	PC6-A
26B	PED. ISO. 3	B-7	26B	PED. ISO. 7	B-9
27A	PED. ISO. 4	PC4-A	27A	PED. ISO. 8	PC8-A
27B	PED. ISO. COMN.	J3-31	27B	PED. ISO. COMN.	J1-27B
28A	ADDR. SEL. 0	-----	28A	ADDR. SEL. 0	J2-32A
28B	ADDR. SEL. 1	-----	28B	ADDR. SEL. 1	-----
29A	ADDR. SEL. 2	-----	29A	ADDR. SEL. 2	-----
29B	ADDR. SEL. 3	-----	29B	ADDR. SEL. 3	-----
30A	RESERVED	-----	30A	RESERVED	-----
30B	RESERVED	-----	30B	RESERVED	-----
31A	EARTH GND.	LS12-2	31A	EARTH GND.	J1-31A
31B	LINE FREQ. REF.	J3-29	31B	LINE FREQ. REF.	J1-31B
32A	LOGIC GND.	B-14	32A	LOGIC GND.	J1-32B
32B	LOGIC GND.	J2-32A	32B	LOGIC GND.	J2-32A

MAIN PANEL CONTROL POWER C/C 34842G4	
PIN	FUNCTION
1	LOGIC GROUND
2	+24 VDC (IN)
3	-----
4	MMU FAULT MONITOR (IN)
5	LINE FREQ. REFERENCE (IN)
6	-----
7	+12 VAC (IN)
8	SIGNAL BUS CONTROL (IN)
9	-----
10	FILTERED AC NEUTRAL (IN)
11	CONT. EQUIP. AC LINE (OUT)
12	FILTERED AC LINE (IN)

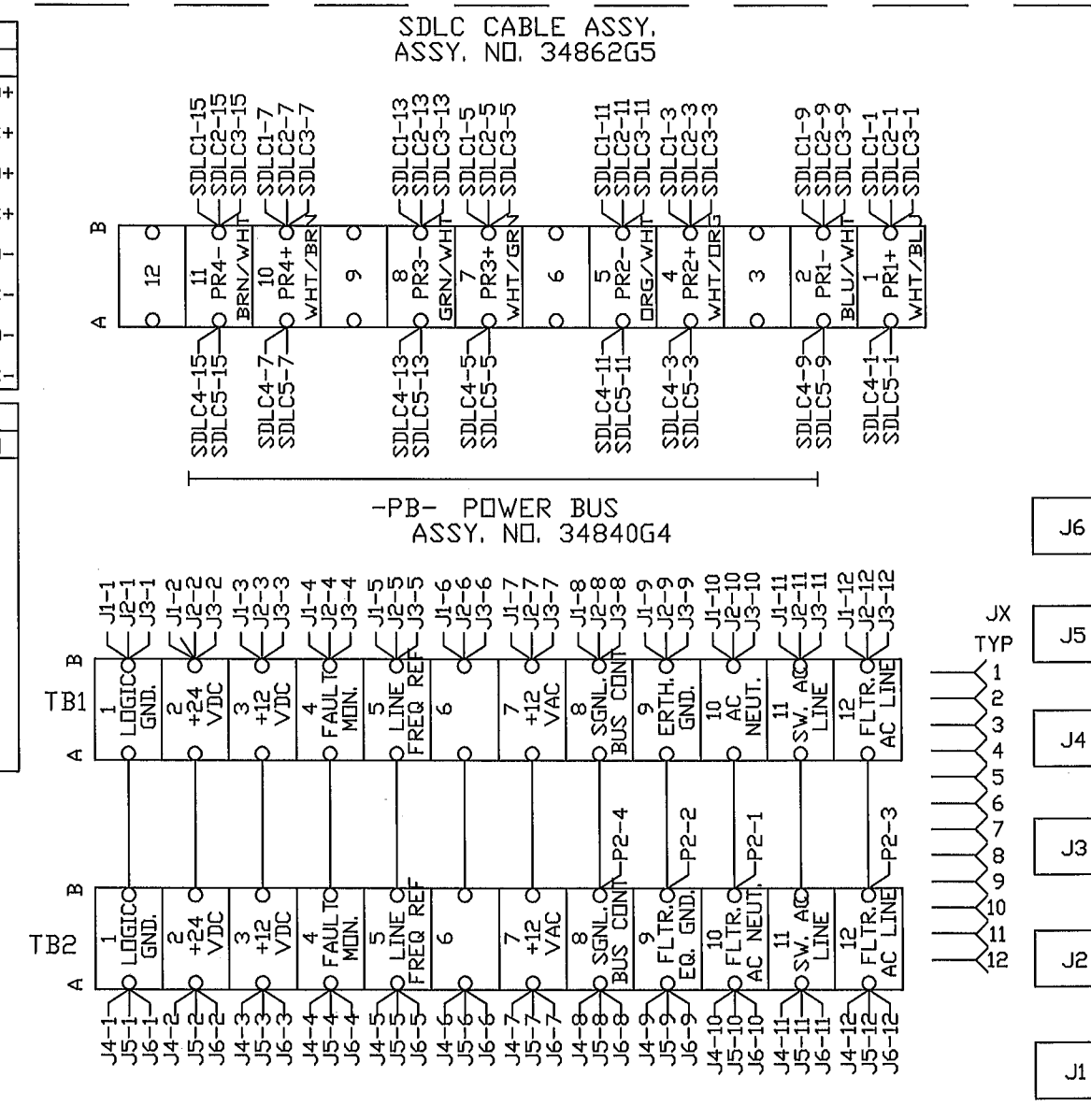
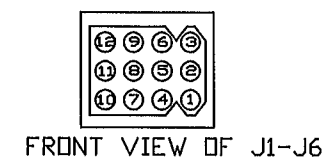
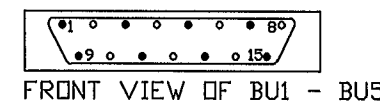
CONTROLLER POWER (CCA2) C/C 34842G3			
WIRE	PIN	SIGNAL	TO
1	A	FAULT MONITOR	PB-4
2	U	AC NEUTRAL	PB-10
3	V	EARTH GROUND	PB-9
4	W	LOGIC GROUND	PB-1
5	P	AC LINE	PB-11
6	SHL	EARTH GROUND	CCA2-V

TYPE 1 CONTROLLER POWER C/C 34842G2		
PIN	FUNCTION	TO
A	AC NEUTRAL	PB-10
B	-----	-----
C	AC LINE	PB-11
D	+12 VDC	-----
E	+24 VDC	-----
F	RESERVED	-----
G	LOGIC GND.	PB-4
H	LOGIC GND.	PB-1
I	EARTH GND.	PB-9
J	+12 VAC	-----
SHL	RESERVED	-----
SHL	EARTH GND.	PIN H

CABINET POWER SUPPLY C/C 34842G1		
PIN	FUNCTION	TO
A	AC NEUTRAL	PB-10
B	LINE FREQUENCY REF.	PB-5
C	AC LINE	PB-11
D	+12 VDC	PB-3
E	+24 VDC	PB-2
F	RESERVED	-----
G	LOGIC GND.	PB-1
H	EARTH GND.	PB-9
I	+12 VAC	PB-7
J	RESERVED	-----
SHL	EARTH GND.	PIN H

CONTROLLER PORT 1 CONNECTOR			
PIN	SIGNAL	TO	FUNCTION
1	TWISTED PAIR 1+	SDLC-1	CONT TXD+
2	LOGIC GND.	-----	-----
3	TWISTED PAIR 2+	SDLC-4	CONT TXC+
4	LOGIC GND.	-----	-----
5	TWISTED PAIR 3+	SDLC-7	CONT RXD+
6	LOGIC GND.	-----	-----
7	TWISTED PAIR 4+	SDLC-10	CONT RXC+
8	LOGIC GND.	-----	-----
9	TWISTED PAIR 1-	SDLC-2	CONT TXD-
10	PORT 1 DISABLE	-----	-----
11	TWISTED PAIR 2-	SDLC-5	CONT TXC-
12	EARTH GND.	SHIELD WIRE	-----
13	TWISTED PAIR 3-	SDLC-8	CONT RXD-
14	RESERVED	-----	-----
15	TWISTED PAIR 4-	SDLC-11	CONT RXC-

MMU & BIU PORT 1 CONNECTOR			
PIN	SIGNAL	TO	FUNCTION
1	TWISTED PAIR 1+	SDLC-1	BIU RXD+
2	LOGIC GND.	-----	-----
3	TWISTED PAIR 2+	SDLC-4	BIU RXC+
4	LOGIC GND.	-----	-----
5	TWISTED PAIR 3+	SDLC-7	BIU TXD+
6	LOGIC GND.	-----	-----
7	TWISTED PAIR 4+	SDLC-10	BIU TXC+
8	LOGIC GND.	-----	-----
9	TWISTED PAIR 1-	SDLC-2	BIU RXD-
10	PORT 1 DISABLE	-----	-----
11	TWISTED PAIR 2-	SDLC-5	BIU RXC-
12	EARTH GND.	SHIELD WIRE	-----
13	TWISTED PAIR 3-	SDLC-8	BIU TXD-
14	RESERVED	-----	-----
15	TWISTED PAIR 4-	SDLC-11	BIU TXC-



WIRE LIST FOR NEMA MALFUNCTION MANAGEMENT UNIT									
CONNECTOR "A" (MMA)					CONNECTOR "B" (MMB)				
PIN	WIRE	MON. FUNCTION	TO	SIG. FUNCTION	PIN	WIRE	MON. FUNCTION	TO	SIG. FUNCTION
A	A-1	AC+ I INPUT	B21		A	B-1	AC+ II INPUT	J3-2	MMU POWER
B	A-2	OUT RLY 1 OPEN	B22		B	B-2	S. DLY RLY COMM.	J3-6	MMU POWER
C	A-3	OUT RLY 2 CLSD	B23		C	B-3	S. DLY RLY OPEN	B28	
D	A-4	CH. 12 GREEN	12G-A	^8 WLK	D	B-4	CH. 12 RED	B40	
E	A-5	CH. 11 GREEN	11G-A	^6 WLK	E	B-5	CH. 11 RED	B39	
F	A-6	CH. 10 GREEN	10G-A	^4 WLK	F	B-6	CH. 9 RED	B37	
G	A-7	CH. 9 GREEN	9G-A	^2 WLK	G	B-7	CH. 8 RED	8R-A	^8 RED
H	A-8	CH. 8 GREEN	8G-A	^8 GRN	H	B-8	CH. 7 RED	7R-A	^7 RED
J	A-9	CH. 7 GREEN	7G-A	^7 GRN	J	B-9	CH. 6 RED	6R-A	^6 RED
K	A-10	CH. 6 GREEN	6G-A	^6 GRN	K	B-10	CH. 5 RED	5R-A	^5 RED
L	A-11	CH. 5 GREEN	5G-A	^5 GRN	L	B-11	CH. 4 RED	4R-A	^4 RED
M	A-12	CH. 4 GREEN	4G-A	^4 GRN	M	B-12	CH. 2 RED	2R-A	^2 RED
N	A-13	CH. 3 GREEN	3G-A	^3 GRN	N	B-13	CH. 1 RED	1R-A	^1 RED
P	A-14	CH. 2 GREEN	2G-A	^2 GRN	P	B-14	(SPARE 1)	B29	
R	A-15	CH. 1 GREEN	1G-A	^1 GRN	R	B-15	+24V MONITOR II	B-3	+24V MON. II
S	A-16	+24V MON. I	B-4	LS +24V MON.	S	B-16	(SPARE 2)	B30	
T	A-17	LOGIC GND	B-14	LOGIC GND	T	B-17	CH. 13 RED	13R-A	OLA RED
U	A-18	CHASSIS GND	LS7-2	EARTH GND.	U	B-18	S. DLY RLY CLSD	J3-35	CONT. POWER
V	A-19	AC- (COMMON)	K1-2	AC NEUTRAL	V	B-19	CH. 10 RED	B38	
W	A-20	OUT RLY 1 COM.	J3-7	SIG BUS CONT	W	B-20	CH. 14 RED	14R-A	OLB RED
X	A-21	OUT RLY 2 COM.	A-27	LOGIC GND	X	B-21	CH. 15 RED	15R-A	OLC RED
Y	A-22	CH. 12 YELLOW	-T-		Y	B-22	CH. 16 RED	16R-A	OLD RED
Z	A-23	CH. 11 YELLOW	-T-		Z	B-23	CH. 3 RED	3R-A	^3 RED
a	A-24	CH. 10 WALK	----		a	B-24	RED ENABLE	LS8-1	SIG BUS CON.
b	A-25	CH. 10 YELLOW	-T-		b	B-25	(SPARE 3)	B31	
c	A-26	CH. 9 YELLOW	-T-		c	B-26	LOCAL FLASH IN	CAPPED	POL/AX FLSH
d	A-27	CH. 8 YELLOW	8Y-A	^8 YEL		B-27	SHELL GROUND	LS6-2	EARTH GND.
e	A-28	CH. 7 YELLOW	7Y-A	^7 YEL	NOTES FOR 16 CHANNEL M.M.U. (1) RELAY CONTACT POSITIONS SPECIFIED ARE FOR NON-CONFLICT MODE. (2) TO PROGRAM MMU, SOLDER JUMPERS IN PROGRAMMING CARD FOR ALL PERMISSABLE PHASE MOVEMENTS, MINIMUM CHANGE DIS-ABLE FOR ALL PEDESTRIAN CHANNELS, AND MIN. FLASH, VOLTAGE MON., AND 24V. MON. LATCH OPTIONS AS DESIRED. M.M.U. CHANNEL ASSIGNMENTS CH. 1 = L/S 1 = ^1 VEH. CH. 2 = L/S 2 = ^2 VEH. CH. 3 = L/S 3 = ^3 VEH. CH. 4 = L/S 4 = ^4 VEH. CH. 5 = L/S 5 = ^5 VEH. CH. 6 = L/S 6 = ^6 VEH. CH. 7 = L/S 7 = ^7 VEH. CH. 8 = L/S 8 = ^8 VEH. CH. 9 = L/S 9 = ^2 PED. CH. 10 = L/S 10 = ^4 PED. CH. 11 = L/S 11 = ^6 PED. CH. 12 = L/S 12 = ^8 PED. CH. 13 = L/S 13 = OLAP A CH. 14 = L/S 14 = OLAP B CH. 15 = L/S 15 = OLAP C CH. 16 = L/S 16 = OLAP D				
f	A-29	CH. 6 YELLOW	6Y-A	^6 YEL					
g	A-30	CH. 5 YELLOW	5Y-A	^5 YEL					
h	A-31	CH. 3 YELLOW	3Y-A	^3 YEL					
i	A-32	CH. 15 GREEN	15G-A	OLC GRN					
j	A-33	CH. 2 YELLOW	2Y-A	^2 YEL					
k	A-34	CH. 1 YELLOW	1Y-A	^1 YEL					
m	A-35	CONT. VOLT. MON.	B-5	VOLT. MON.					
n	A-36	+24V MON. INH.	B-2						
p	A-37	OUT RLY 1 CLSD	J3-3						
q	A-38	OUT RLY 2 OPEN	A-31	STOP TIME					
r	A-39	CH. 12 WALK	----						
s	A-40	CH. 11 WALK	----						
t	A-41	CH. 9 WALK	----						
u	A-42	CH. 16 YELLOW	16Y-A	OLD YEL					
v	A-43	CH. 15 YELLOW	15Y-A	OLC YEL					
w	A-44	CH. 13 YELLOW	13Y-A	OLA YEL					
x	A-45	CH. 4 YELLOW	4Y-A	^4 YEL					
y	A-46	CH. 14 GREEN	14G-A	OLB GRN					
z	A-47	CH. 13 GREEN	13G-A	OLA GRN					
AA	A-48	(SPARE 1)	B24		M.M.U. C/C'S AND PROGRAM CARD SHEET 7 OF 11				
BB	A-49	RESET	B-1						
CC	A-50	CAB. INTLK A	B25						
DD	A-51	CAB. INTLK B	B26						
EE	A-52	CH. 14 YELLOW	14Y-A	OLB YRL					
FF	A-53	CH. 16 GREEN	16G-A	OLD GRN					
GG	A-54	(SPARE 2)	B27						
HH	A-55	TYPE SELECT	A-20	MMU/CMU SEL.					
	A-56	SHELL GND	LS15-2	EARTH GND.					

MMU PROGRAM CARD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
3	4	5	6	7	8	9	10	11	12	13	14	15	16		
4	5	6	7	8	9	10	11	12	13	14	15	16			
5	6	7	8	9	10	11	12	13	14	15	16				
6	7	8	9	10	11	12	13	14	15	16					
7	8	9	10	11	12	13	14	15	16						
8	9	10	11	12	13	14	15	16							
9	10	11	12	13	14	15	16								
10	11	12	13	14	15	16									
11	12	13	14	15	16										
12	13	14	15	16											
13	14	15	16												
14	15	16													
15	16														

MIN. CLR. DIS. 8 7 6 5 4 3 2 1

MIN. FLASH TIME 8 4 2 1

24V LATCH ENA. CVM LATCH ENA.

M.M.U. C/C'S AND PROGRAM CARD

DETECTOR RACK 34030G1

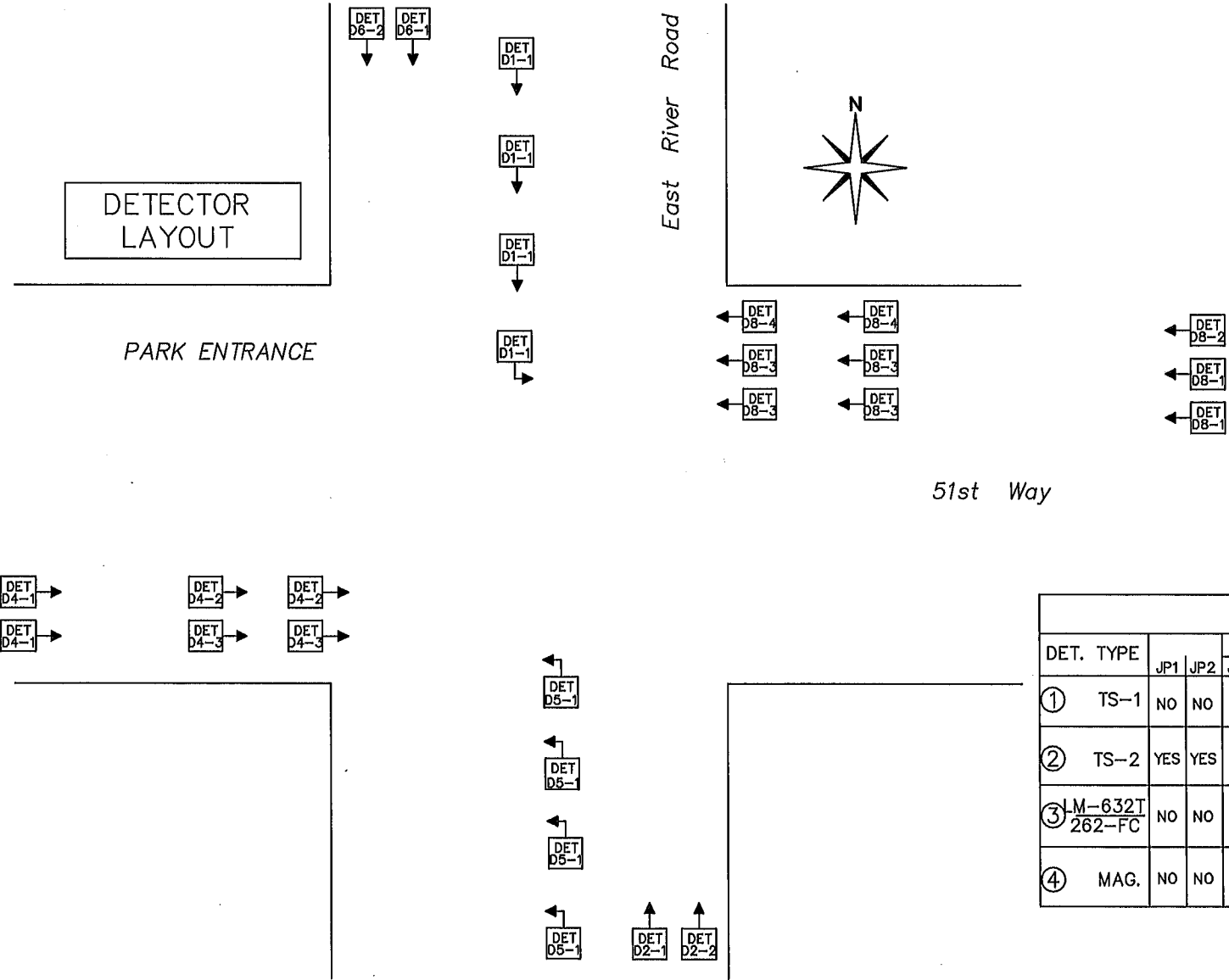
POWER SUPPLY OR B.I.U.	L3	L1	L7	L5	L11	L9	L15	L13	PMT 5 ø4 ☐ 2CH OPTICOM/ OPIC CH. C CH. D ø8	PMT 3 ø1-6 ☐ 4CH ☐ 2CH OPTICOM/ OPIC CH. A CH. B ø2-5	PGM. CARD
	5-1 ☐ 2CH	1-1 ☐ 2CH	6-1 ☐ 2CH 6-2	2-1 ☐ 2CH 2-2	4-3 ☐ 2CH	4-1 ☐ 2CH 4-2	8-3 ☐ 2CH 8-4	8-1 ☐ 2CH 8-2			
	L4	L2	L8	L6	L12	L10	L16	L14	PMT 6	PMT 4	

☒ J13 C/C 33284G10 DC POWER	☒ J16 C/C 33284G8 EXP. OUTPUTS	☒ J14 C/C 33284G2 LPS 1-8	☐ J18 C/C 33284G9 SYS. OUTPUTS	☒ J15 C/C 33284G3 LPS 9-16	☒ J17 C/C 33284G6 AC POWER	☒ J19 C/C 33284G17 PGM. CARD
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①

ADDRESS TABLE					
RACK #	JMPR	DET. #S	RACK #	JMPR	DET. #S
1	⊙⊙⊙	1-16	5	⊙⊙⊙	65-80
2	⊙⊙⊙	17-32	6	⊙⊙⊙	81-96
3	⊙⊙⊙	33-48	7	⊙⊙⊙	97-112
4	⊙⊙⊙	49-64	8	⊙⊙⊙	113-128

DETECTOR ASSIGNMENTS		
CONT. INPUT	PHASE ASGN.	DETECTOR TYPE
1	1-1	1
2		
3	5-1	1
4		
5	2-1	1
6	2-2	1
7	6-1	1
8	6-2	1
9	4-1	3
10	4-2	1
11	4-3	7
12		
13	8-1	3,8
14	8-2	3,8
15	8-3	1
16	8-4	7
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
26		
28		
29		
30		
31		
32		
33		
34		
35		
36		

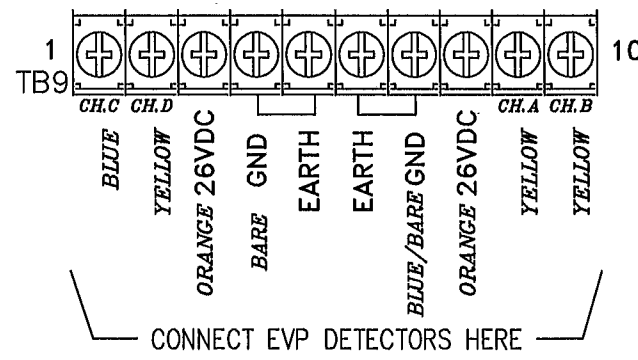
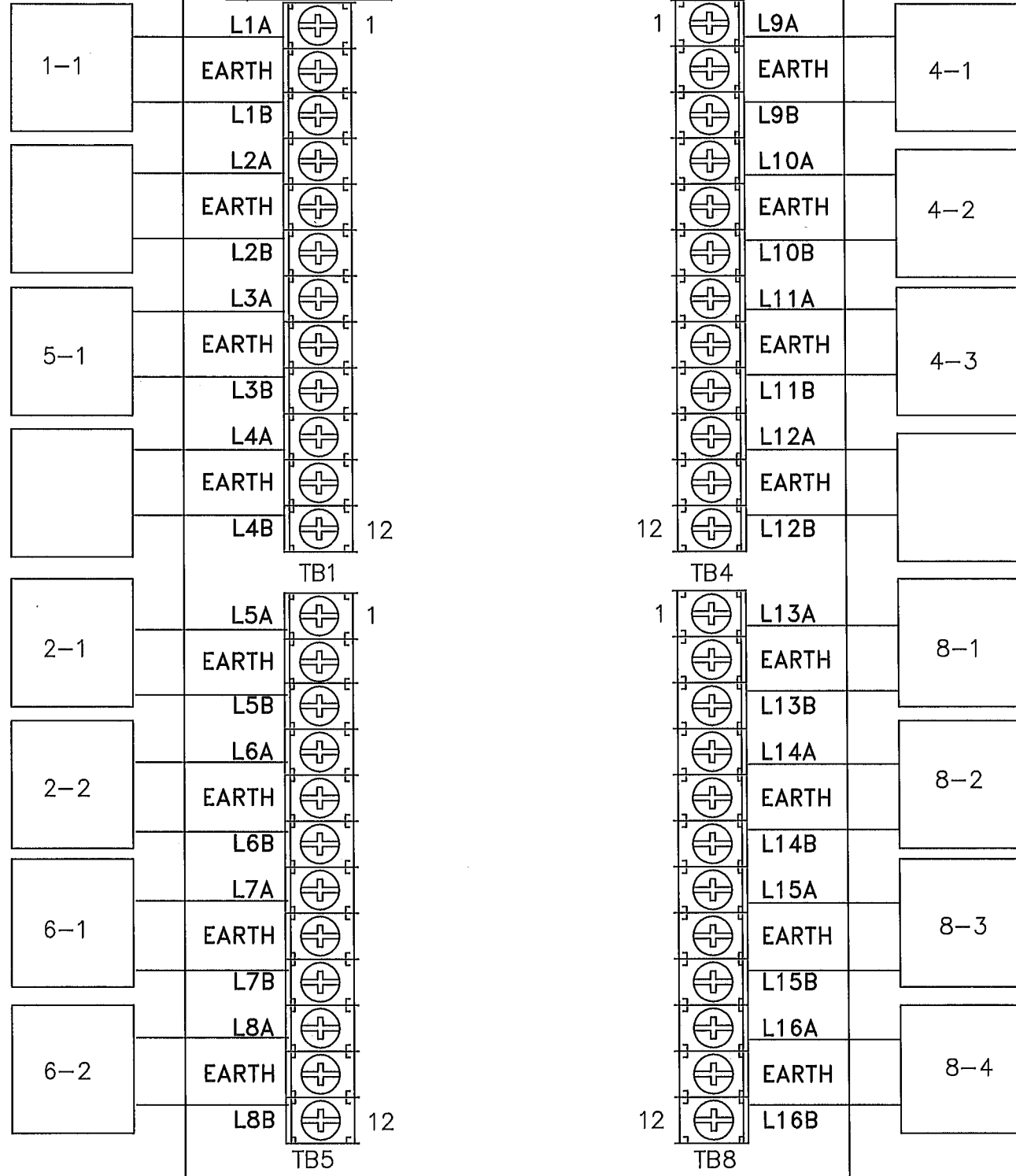


DETECTOR RACK PROGRAMMING JUMPERS																													
DET. TYPE	JP1 JP2		SLOT 1/2 ①							SLOT 3/4 ①							SLOT 5/6 ①							SLOT 7/8 ①					
			JP3	JP4	JP5	JP6	JP7	JP8	JP9	JP10	JP11	JP12	JP13	JP14	JP15	JP16	JP17	JP18	JP19	JP20	JP21	JP22	JP23	JP24	JP25	JP26	JP27	JP28	JP29
① TS-1	NO	NO																											
② TS-2	YES	YES																											
③ LM-632T 262-FC	NO	NO																											
④ MAG.	NO	NO																											

DETECTOR LOOP
INTERFACE
ASSY. 34040G1

J1
TO DR1: J14
C/C 33284G2

J2
TO DR1: J15
C/C 33284G3



CONNECT EVP DETECTORS HERE

DET. LOOPS 9-16 (J15) C/C 33284G3

PIN	SIGNAL	TO
1	LOOP 9+	LPI2: TB4-1
2	LOOP 9-	LPI2: TB4-3
3	LOOP 10+	LPI2: TB4-4
4	LOOP 10-	LPI2: TB4-6
5	LOOP 11+	LPI2: TB4-7
6	LOOP 11-	LPI2: TB4-9
7	LOOP 12+	LPI2: TB4-10
8	LOOP 12-	LPI2: TB4-12
9	LOOP 13+	LPI2: TB8-1
10	LOOP 13-	LPI2: TB8-3
11	LOOP 14+	LPI2: TB8-4
12	LOOP 14-	LPI2: TB8-6
13	LOOP 15+	LPI2: TB8-7
14	LOOP 15-	LPI2: TB8-9
15	LOOP 16+	LPI2: TB8-10
16	LOOP 16-	LPI2: TB8-12
17	----	
18	----	
19	----	
20	----	

DET. LOOPS 1-8 (J14) C/C 33284G2

PIN	SIGNAL	TO
1	LOOP 1+	LPI1: TB1-1
2	LOOP 1-	LPI1: TB1-3
3	LOOP 2+	LPI1: TB1-4
4	LOOP 2-	LPI1: TB1-6
5	LOOP 3+	LPI1: TB1-7
6	LOOP 3-	LPI1: TB1-9
7	LOOP 4+	LPI1: TB1-10
8	LOOP 4-	LPI1: TB1-12
9	LOOP 5+	LPI1: TB5-1
10	LOOP 5-	LPI1: TB5-3
11	LOOP 6+	LPI1: TB5-4
12	LOOP 6-	LPI1: TB5-6
13	LOOP 7+	LPI1: TB5-7
14	LOOP 7-	LPI1: TB5-9
15	LOOP 8+	LPI1: TB5-10
16	LOOP 8-	LPI1: TB5-12
17	PMT. DET. CH. C	LPI1: TB9-1
18	PMT. DET. CH. D	LPI1: TB9-2
19	KEY PIN	
20	PMT. CH. C/D +26VDC	LPI1: TB9-3
21	PMT. DC GROUND	LPI1: TB9-4,7
22	PMT. CH. A/B +26VDC	LPI1: TB9-8
23	PMT. DET. CH. A	LPI1: TB9-9
24	PMT. DET. CH. B	LPI1: TB9-10
25	----	
26	----	

DET. RACK POWER C/C 34842G5			
P1/ DR: J13	P2/ DR: J17	FUNCTION	TO
1		+12 VDC (DET. POWER)	PB-3
2		+24 VDC (BIU POWER)	PB-2
3		LOGIC GROUND	PB-1
4		EARTH GROUND	PB-9
5		"KEY PIN"	
6		LINE FREQUENCY REF.	PB-5
	1	EARTH GROUND	----
	2	AC LINE	PB-12
	3	AC NEUTRAL	PB-10
	4	LOGIC GROUND	----

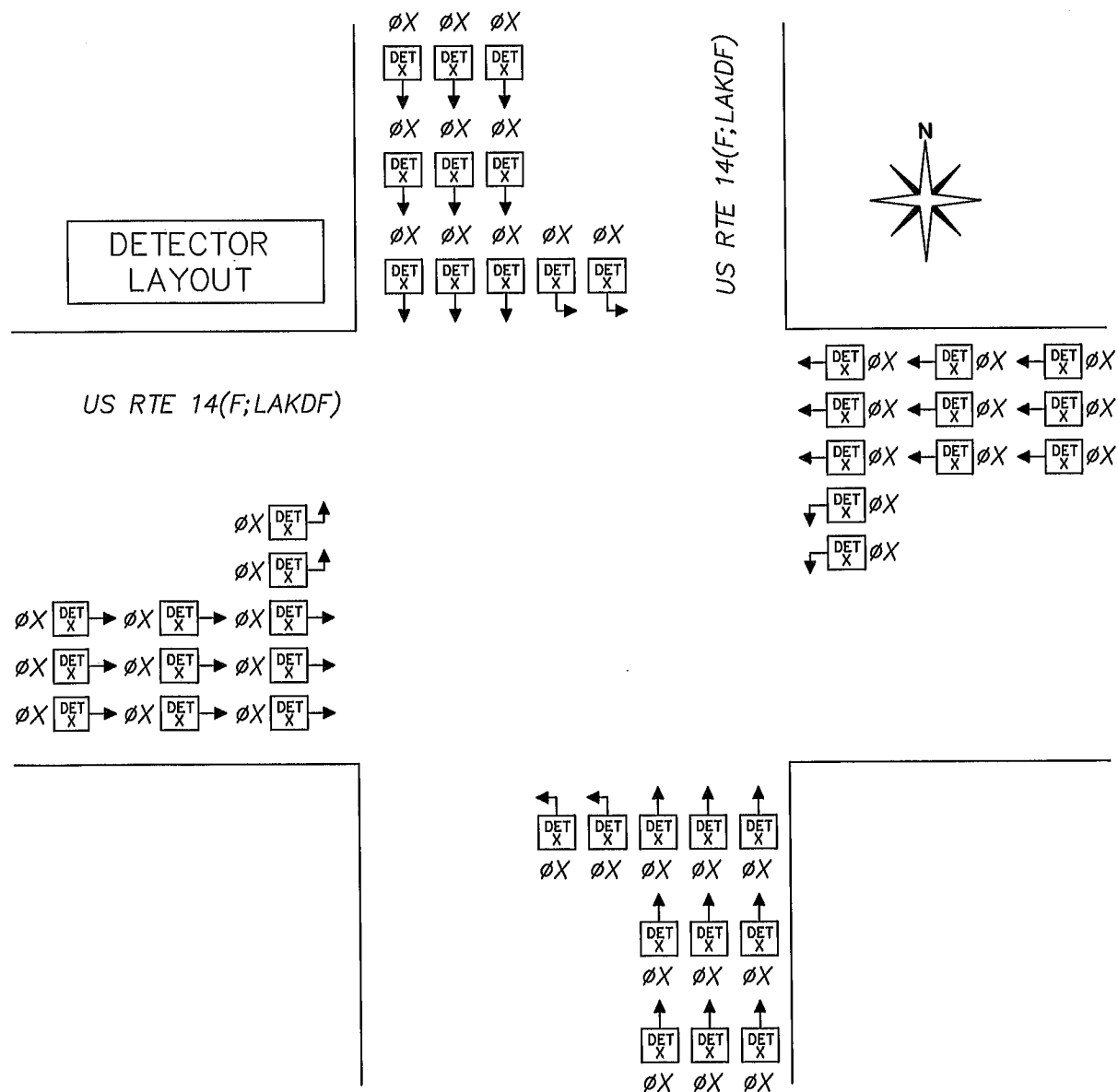
EXPANSION OUTPUTS C/C 33284G8		
J16	FUNCTION	TO
17	DET. 17 / PMT. A OUT	MP: B19
18	DET. 18 / PMT. B OUT	MP: B20
19	PMT. C OUT	MP: B17
20	PMT. D OUT	MP: B18

DETECTOR LOOP INTERFACE

2

RACK #	JMPR	DET. #S	RACK #	JMPR	DET. #S
1		1-16	5		65-80
2		17-32	6		81-96
3		33-48	7		97-112
4		49-64	8		113-128

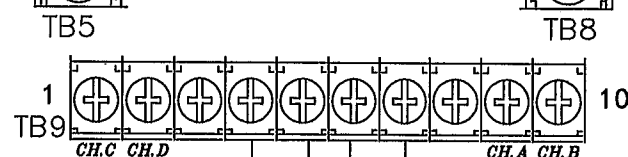
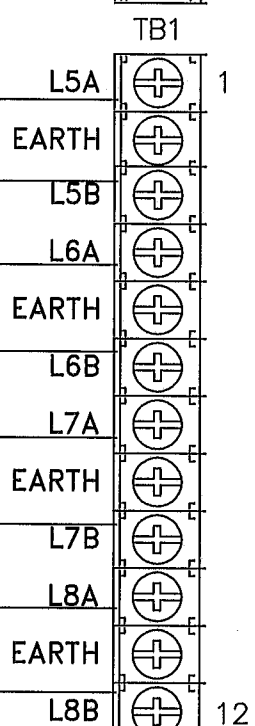
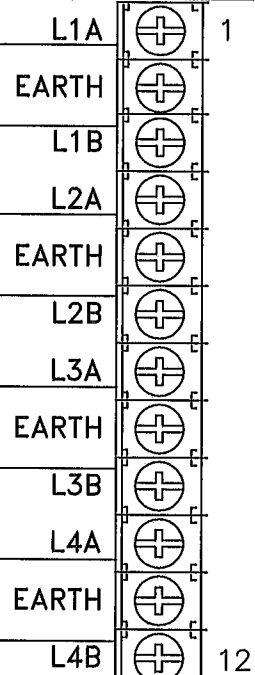
DETECTOR ASSIGNMENTS		
CONT. INPUT	PHASE ASGN.	DETECTOR TYPE
1	X	1
2	X	1
3	X	1
4	X	1
5	X	1
6	X	1
7	X	1
8	X	1
9	X	1
10	X	1
11	X	1
12	X	1
13	X	1
14	X	1
15	X	1
16	X	1
17	X	1
18	X	1
19	X	1
20	X	1
21	X	1
22	X	1
23	X	1
24	X	1
25	X	1
26	X	1
26	X	1
28	X	1
29	X	1
30	X	1
31	X	1
32	X	1
33	X	1
34	X	1
35	X	1
36	X	1

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DETECTOR LOOP
INTERFACE
ASSY. 34040G1

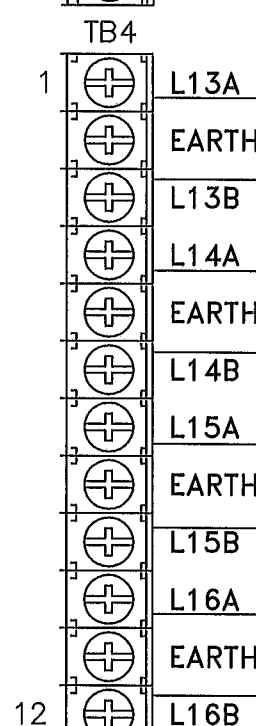
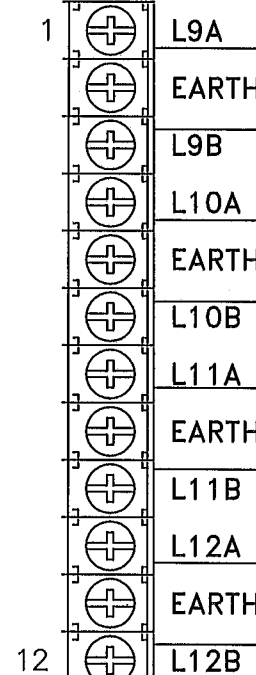
J1
TO DR1: J14
C/C 33284G2

J2
TO DR1: J15
C/C 33284G3



DETECTOR RACK

2 NOT IN USE



TB8

DET. LOOPS 9-16 (J15) C/C 33284G3

PIN	SIGNAL	TO
1	LOOP 9+	LPI2: TB4-1
2	LOOP 9-	LPI2: TB4-3
3	LOOP 10+	LPI2: TB4-4
4	LOOP 10-	LPI2: TB4-6
5	LOOP 11+	LPI2: TB4-7
6	LOOP 11-	LPI2: TB4-9
7	LOOP 12+	LPI2: TB4-10
8	LOOP 12-	LPI2: TB4-12
9	LOOP 13+	LPI2: TB8-1
10	LOOP 13-	LPI2: TB8-3
11	LOOP 14+	LPI2: TB8-4
12	LOOP 14-	LPI2: TB8-6
13	LOOP 15+	LPI2: TB8-7
14	LOOP 15-	LPI2: TB8-9
15	LOOP 16+	LPI2: TB8-10
16	LOOP 16-	LPI2: TB8-12
17	----	
18	----	
19	----	
20	----	

DET. LOOPS 1-8 (J14) C/C 33284G2

PIN	SIGNAL	TO
1	LOOP 1+	LPI1: TB1-1
2	LOOP 1-	LPI1: TB1-3
3	LOOP 2+	LPI1: TB1-4
4	LOOP 2-	LPI1: TB1-6
5	LOOP 3+	LPI1: TB1-7
6	LOOP 3-	LPI1: TB1-9
7	LOOP 4+	LPI1: TB1-10
8	LOOP 4-	LPI1: TB1-12
9	LOOP 5+	LPI1: TB5-1
10	LOOP 5-	LPI1: TB5-3
11	LOOP 6+	LPI1: TB5-4
12	LOOP 6-	LPI1: TB5-6
13	LOOP 7+	LPI1: TB5-7
14	LOOP 7-	LPI1: TB5-9
15	LOOP 8+	LPI1: TB5-10
16	LOOP 8-	LPI1: TB5-12
17	PMT. DET. CH. C	LPI1: TB9-1
18	PMT. DET. CH. D	LPI1: TB9-2
19	KEY PIN	
20	PMT. CH. C/D +26VDC	LPI1: TB9-3
21	PMT. DC GROUND	LPI1: TB9-4,7
22	PMT. CH. A/B +26VDC	LPI1: TB9-8
23	PMT. DET. CH. A	LPI1: TB9-9
24	PMT. DET. CH. B	LPI1: TB9-10
25	----	
26	----	

DET. RACK POWER C/C 34842G5			
P1/ DR: J13	P2/ DR: J17	FUNCTION	TO
1		+12 VDC (DET. POWER)	PB-3
2		+24 VDC (BIU POWER)	PB-2
3		LOGIC GROUND	PB-1
4		EARTH GROUND	PB-9
5		"KEY PIN"	
6		LINE FREQUENCY REF.	PB-5
	1	EARTH GROUND	----
	2	AC LINE	PB-12
	3	AC NEUTRAL	PB-10
	4	LOGIC GROUND	----

EXPANSION OUTPUTS C/C 33284G8		
J16	FUNCTION	TO
17	DET. 17 / PMT. A OUT	MP: B19
18	DET. 18 / PMT. B OUT	MP: B20
19	PMT. C OUT	MP: B17
20	PMT. D OUT	MP: B18

DETECTOR LOOP INTERFACE

CABLE	DISCR.	PHASES	POLE#	TERMINAL TB9		
	CHAN.			SIGNAL	DC(+)	GND
18	1	1-6	4	9	8	7
16	2	2-5	3	10	8	7
17(Blu)	3	8	5	1	3	4
17(Yel)	4	4	5	2	3	4

CABLE	CONTR	PHASES	POLE#	TERM.
	CHAN.			
9	3	1-6	4	51
4	4	2-5	2	57
6	5	8	5	63
7	6	4	5	69

CABLE	SIGNAL	TERMINAL					
		G←	Y←	R←	G	Y	R
2	1-1	1	3	5			
4	2-1				7	9	11
4	2-2				8	10	12
2	4-1				19	21	23
2	4-2				20	22	24
1	4-3				19	21	23
5	4-4				20	22	24
6	5-1	25	27	29			
9	6-1				31	33	35
10	6-2				32	34	36
7	8-1				43	45	47
6	8-2				44	46	48
8	8-3				43	45	47
10	8-4				44	46	48

[illegible]

CABLE	PPB	TERMINAL	RETURN
11	2-1	PC2	GB1
12	2-2	PC2	GB1
15	4-1	PC4	GB1
11	4-2	PC4	GB1
11	4-3	PC4	GB1
14	6-1	PC6	GB1
15	6-2	PC6	GB1
12	8-1	PC8	GB1
13	8-2	PC8	GB1
14	8-3	PC8	GB1

CABLE	SIGNAL	TERMINAL	
		WK	DW
1	2-1	49	53
4	2-2	50	54
9	4-1	55	59
3	4-2	56	60
1	4-3	55	59
3	4-4	56	60
8	6-1	61	65
9	6-2	62	66
4	8-1	67	71
7	8-2	68	72
8	8-3	67	71
7	8-4	68	72