

MAIN PANEL:171-1081-504

| ASC3-2100 CONTROLLER WITH:  | LEGEND  |
|---|---|
| <ul style="list-style-type: none"> <li>■ CONFIGURATION: 3601</li> <li>■ SOFTWARE: 2.44.30</li> <li>■ ETHERNET MODULE</li> </ul>   | <ul style="list-style-type: none"> <li>BIU BUS INTERFACE UNIT</li> <li>BU() C/C, BIU ()</li> <li>CB() CIRCUIT BREAKER ()</li> <li>C/C CONNECTING CABLE</li> <li>CCA CONTROLLER CABLE "A"</li> <li>CDP C/C, DR POWER</li> <li>CMA MMU/CMU CABLE "A"</li> <li>CMB MMU/CMU CABLE "B"</li> <li>CPO C/C PRE-EMPT OUTPUTS</li> <li>CPP C/C PRE-EMPT POWER</li> <li>DR DETECTOR RACK</li> <li>DS() DOOR SWITCH ()</li> <li>FL() FLASHER ()</li> <li>FR() FLASH XFER. RELAY</li> <li>LS() LOAD SWITCH</li> <li>MC MERCURY CONTACTOR</li> <li>MP MAIN PANEL</li> <li>PAP POWER-AUX PANEL</li> <li>PSP CAB. PWR. SUPPLY</li> <li>SA SURGE ARRESTOR</li> <li>TB-() TERM. BLOCK ()</li> </ul> |
| <ul style="list-style-type: none"> <li>□ OVERLAPS                             <ul style="list-style-type: none"> <li>□ IN EEPROM</li> <li>□ KEYBOARD ENTERED</li> </ul> </li> <li>□ ANALOG TELEMETRY MOD.: 100-1005-501</li> <li>■ INTERNAL RS-232 TELEMETRY</li> <li>□ TEST INPUT A =</li> <li>□ TEST INPUT B =</li> </ul> |   |

| 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          | -----         |

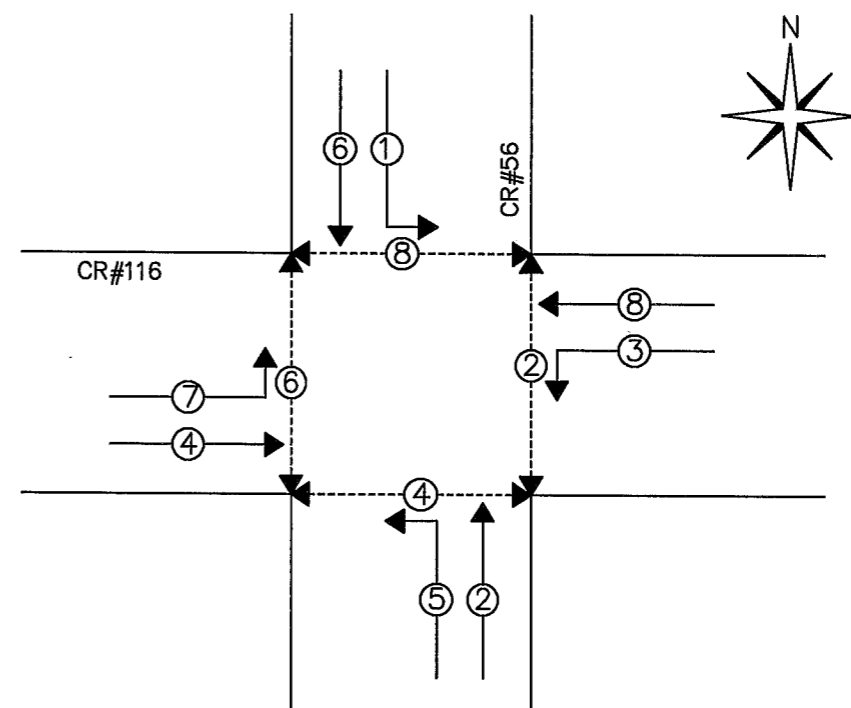
①  
2.2K  
10W

### MAIN PANEL PLUG-IN REQUIREMENTS

|                     |                     |                         |                          |                          |                          |                       |                |                |                         |
|---------------------|---------------------|-------------------------|--------------------------|--------------------------|--------------------------|-----------------------|----------------|----------------|-------------------------|
| BIU2<br>T&F         | BIU3<br>T&F         | LS9<br>PED 2<br>BEACONS | LS10<br>PED 4<br>BEACONS | LS11<br>PED 6<br>BEACONS | LS12<br>PED 8<br>BEACONS | LS13<br>OL "A"        | LS14<br>OL "B" | LS15<br>OL "C" | LS16<br>OL "D"          |
| BIU1<br>T&F         | LS1<br>VEH 1        | LS2<br>VEH 2            | LS3<br>VEH 3             | LS4<br>VEH 4             | LS5<br>VEH 5             | LS6<br>VEH 6          | LS7<br>VEH 7   | LS8<br>VEH 8   | FL1<br>□ 1CKT<br>■ 2CKT |
| FR1<br>L R<br>V1 V5 | FR2<br>L R<br>V2 V6 | FR3<br>L R<br>V3 V7     | FR4<br>L R<br>V4 V8      | ⊗ FR5<br>L R<br>A C      | ⊗ FR6<br>L R<br>B D      | K1<br>LS 24V<br>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 12

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.

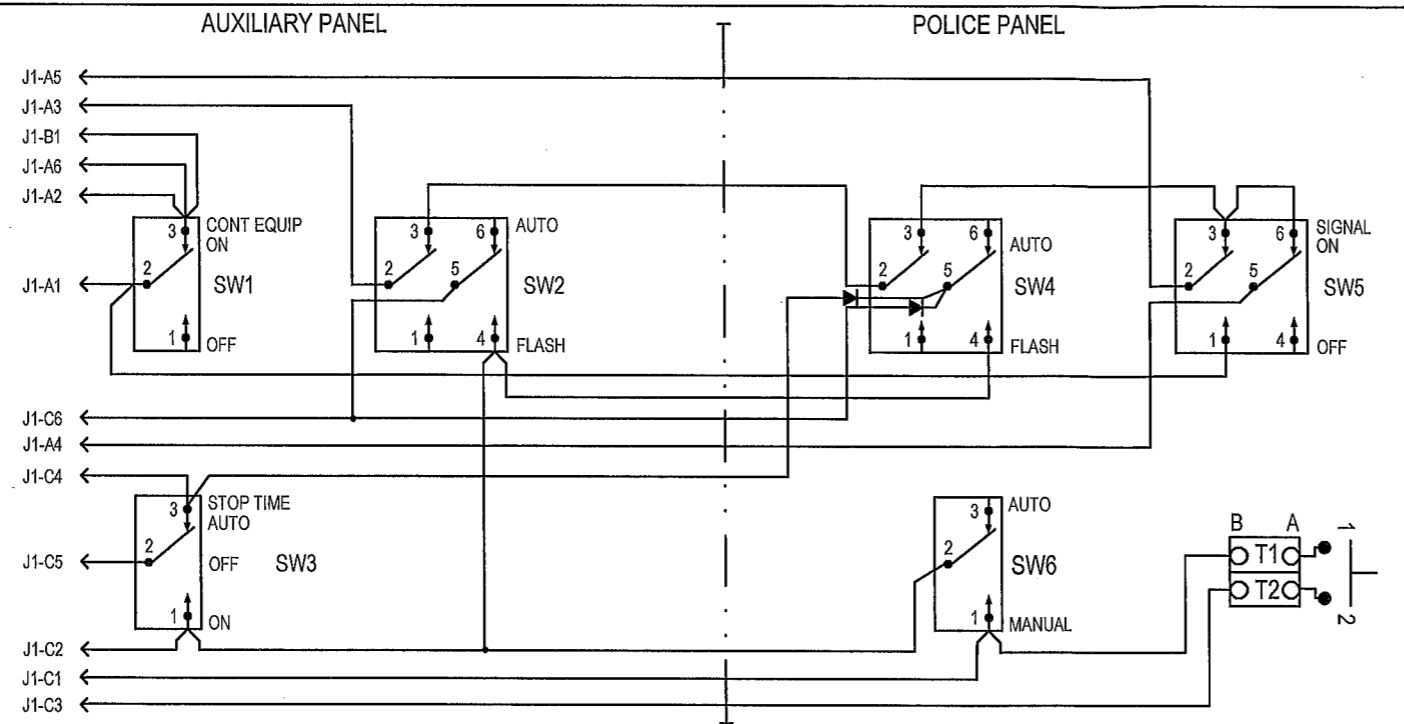
① INSTALL 2.2K, 10 WATT LOAD RESISTORS BETWEEN PINS 7 AND 11 ON LOAD SWITCHES 9, 10, 11 & 12.

NOTES: UNLESS SPECIFIED OTHERWISE

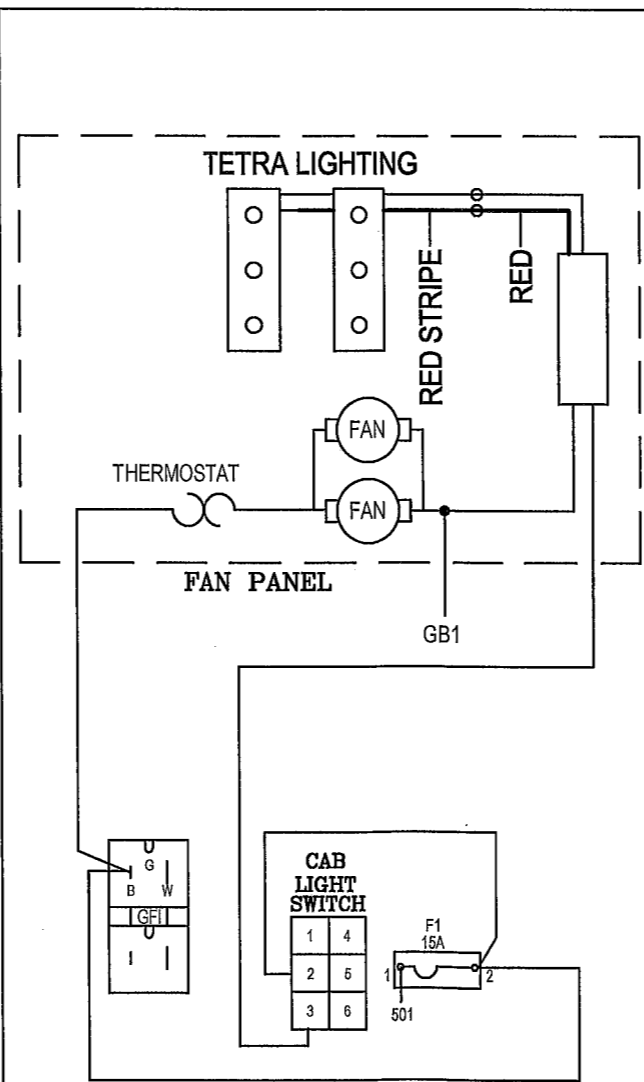
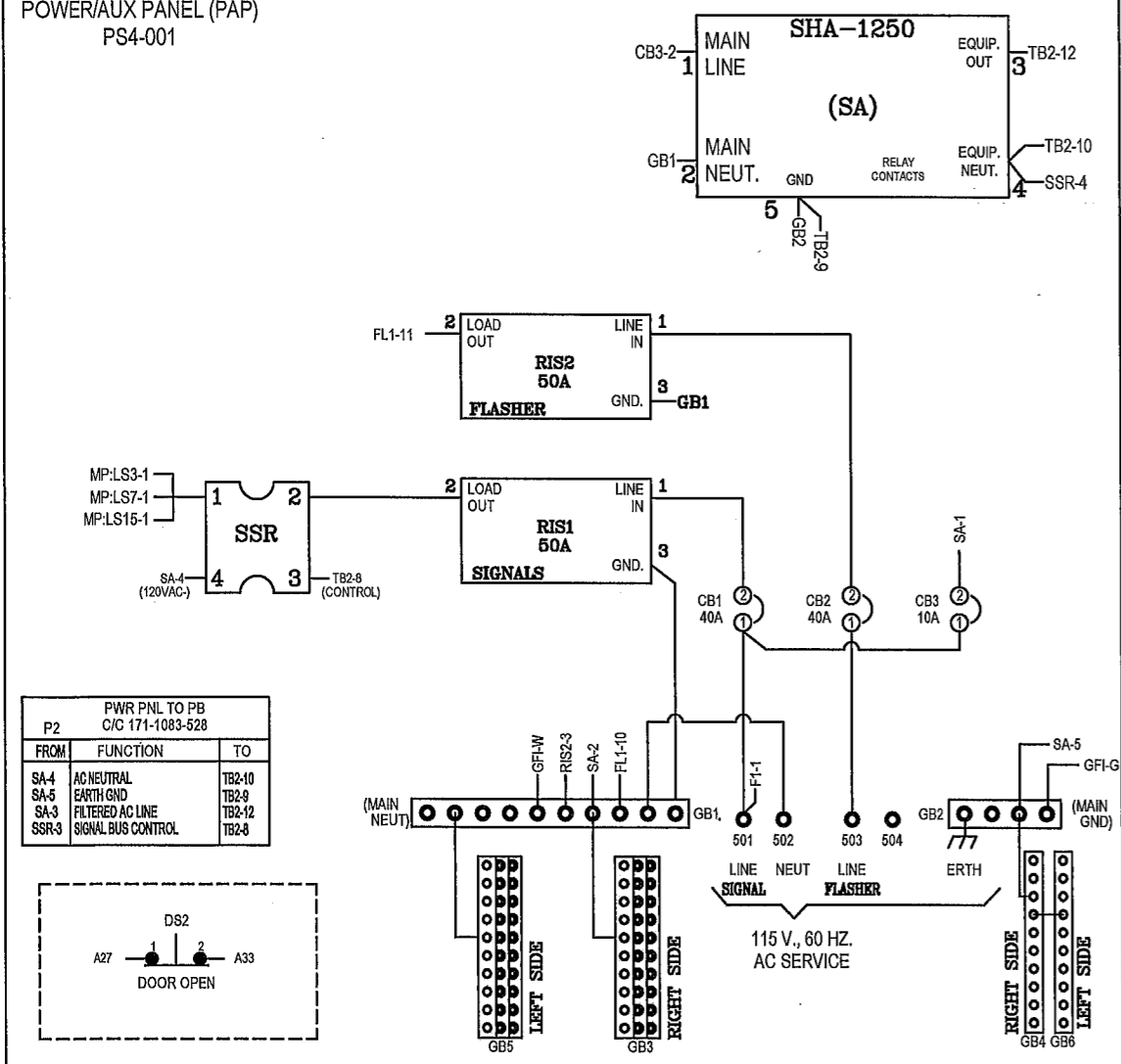
|                         |                     |   |                                    |   |  |
|-------------------------|---------------------|---|------------------------------------|---|--|
| DESIGNER<br>G.V. T.C.C. | DATE<br>02/03/97    | <b>ECONOLITE</b><br>CONTROL PRODUCTS INC. | <b>TRAFFIC CONTROL CORPORATION</b> | 780 W. BELDEN SUITE D<br>ADDISON, IL 60101                    |  |
| DRAWN<br>CM TCC         | 11/04/08            |   |                                    | CABINET SPECIFICATION: TS2TYPE1 ANOKA COUNTY SPEC PLUG AND GO |  |
| CABINET SIZE            | 77" HOFFMAN<br>GRAY | CUSTOMER:                                 |                                    | FLASHER   |  |
| INSPECTED               |                     | INTERSECTION: CR#116 AT CR#56             |                                    | SW.PACKS  |  |
| APPROVED                |                     | LOCATION:                                 |                                    |   |  |
| CUSTOMER P.O.           | INSTALLED BY        | SYSTEM:                                   |                                    |   |  |
| SIG783-09-05            |                     | SALES ORDER NO.                           | SIZE<br>B                          | DRAWING #TS2AC16PG-   |  |

POLICE/AUX SWITCHES  
ASSY. NO. 171-1076-510

| POLICE/AUXILIARY SWITCH PANEL |                          |       |
|-------------------------------|--------------------------|-------|
| J1 PIN                        | FUNCTION                 | TO    |
| A1                            | FILTER AC LINE (IN)      | SW1-2 |
| A2                            | SWITCHED AC LINE (OUT)   | SW1-3 |
| A3                            | FLASH CONTROL BUS (IN)   | SW2-2 |
| A4                            | SIGNAL BUS CONTROL (OUT) | SW5-5 |
| A5                            | FLASH RELAY CONT. (OUT)  | SW5-2 |
| A6                            | START DELAY BUS (OUT)    | SW1-3 |
| B1                            | MMU FLSH CONT. BUS (OUT) | SW1-3 |
| B2                            | SPARE                    | ---   |
| B3                            | SPARE                    | ---   |
| B4                            | SPARE                    | ---   |
| B5                            | SPARE                    | ---   |
| B6                            | SPARE                    | ---   |
| C1                            | MAN. CONT. ENABLE (OUT)  | SW6-1 |
| C2                            | LOGIC GROUND             | SW3-1 |
| C3                            | INTERVAL ADVANCE (OUT)   | T2-B  |
| C4                            | MMU STOP TIME (IN)       | SW3-3 |
| C5                            | CONT. STOP TIME (OUT)    | SW3-2 |
| C6                            | LOCAL FLASH STATUS (OUT) | SW2-5 |
| D1                            | COORD FREE (OUT)         | ---   |
| D2                            | ALARM 1 (OUT)            | ---   |
| D3                            | ALARM 2 (OUT)            | ---   |
| D4                            | LOADSWITCH TEST (OUT)    | ---   |
| D5                            | MMU 24 VOLT MON. 2 (OUT) | ---   |
| D6                            | +24 VDC (IN)             | ---   |



POWER/AUX PANEL (PAP)  
PS4-001



J3-D6 A1

MMB-1 A2

MMA-37 A3

K1-10 A4

FR6-2 A5

MMB-2 A6

MMA-20 A7

A8

A9

A10

B1

B2

A-39 B3

A-35 B4

A-40 B5

A-31 B6

A-30 B7

A-32 B8

A-38 B9

A-33 B10

A-34 C1

K1-9 C2

B-3 C3

B-4 C4

A-35 C5

K1-11 C6

C7

B-5 C8

J1-31B C9

C10

J1-27B D1

K1-10 D2

D3

D4

K1-2 D4

MMB-18 D5

J3-A1 D6

(MAIN PANEL & C/C REFERENCES ONLY)

| TO/FROM POLICE-AUXILIARY SWITCH PANEL |                            |  |
|---------------------------------------|----------------------------|--|
| PIN                                   | FUNCTION                   |  |
| A1                                    | FILTER AC LINE (OUT)       |  |
| A2                                    | SWITCHED AC LINE (IN)      |  |
| A3                                    | FLASH CONTROL BUS (OUT)    |  |
| A4                                    | SIGNAL BUS CONTROL (IN)    |  |
| A5                                    | FLASH RELAY CONTROL (IN)   |  |
| A6                                    | START DELAY AC BUS (IN)    |  |
| A7                                    | MMU FLASH CONTROL BUS (IN) |  |
| A8                                    | SPARE                      |  |
| A9                                    | SPARE                      |  |
| A10                                   | SPARE                      |  |
| B1                                    | SPARE                      |  |
| B2                                    | SPARE                      |  |
| B3                                    | MANUAL CONT. ENABLE (IN)   |  |
| B4                                    | LOGIC GROUND               |  |
| B5                                    | INTERVAL ADVANCE (IN)      |  |
| B6                                    | MMU STOP TIME (OUT)        |  |
| B7                                    | CONTROLLER STOP TIME (IN)  |  |
| B8                                    | LOCAL FLASH STATUS (IN)    |  |
| B9                                    | OPT-COORD FREE (IN)        |  |
| B10                                   | OPT-ALARM 1 (IN)           |  |
| C1                                    | OPT-ALARM 2 (IN)           |  |
| C2                                    | OPT-LOADSWITCH TEST (IN)   |  |
| C3                                    | MMU 24 VOLT MON. 2 (IN)    |  |
| C4                                    | +24 VDC                    |  |
| C5                                    | LOGIC GROUND               |  |
| C6                                    | +24 VDC (IN)               |  |
| C7                                    | ---                        |  |
| C8                                    | MMU FAULT MONITOR (IN)     |  |
| C9                                    | LINE FREQ. REFERENCE (IN)  |  |
| C10                                   | ---                        |  |
| D1                                    | 12 VAC (IN)                |  |
| D2                                    | SIGNAL BUS CONTROL (IN)    |  |
| D3                                    | ---                        |  |
| D4                                    | FILTERED AC NEUTRAL (IN)   |  |
| D5                                    | CONT. EQUIP. AC LINE (OUT) |  |
| D6                                    | FILTERED AC LINE (IN)      |  |

MP P3 MAIN PANEL/CONTROLLER PWR. C/C 171-1083-504/524

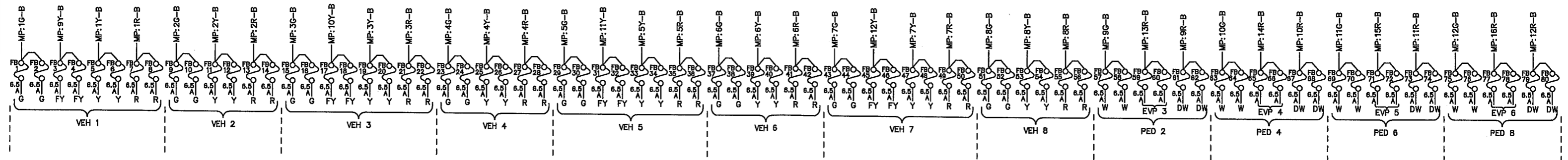
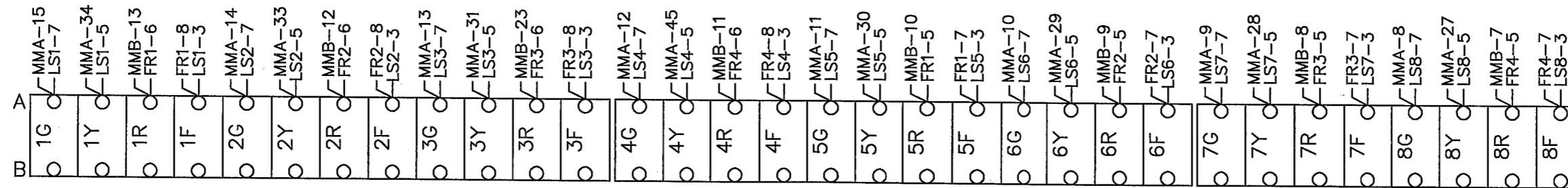
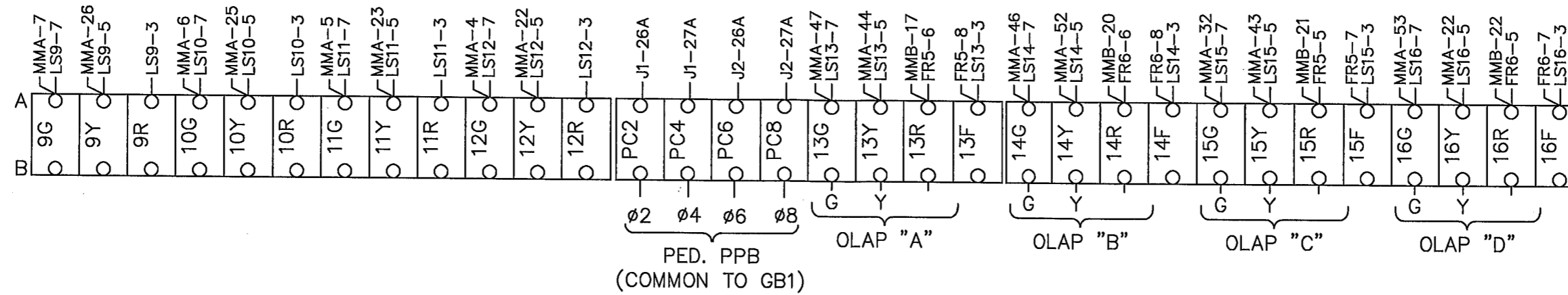
| TO POL/AUX P1 |                            |     |
|---------------|----------------------------|-----|
| PIN           | FUNCTION                   | PIN |
| A1            | FILTER AC LINE (OUT)       | A1  |
| A2            | SWITCHED AC LINE (IN)      | A2  |
| A3            | FLASH CONTROL BUS (OUT)    | A3  |
| A4            | SIGNAL BUS CONTROL (IN)    | A4  |
| A5            | FLASH RELAY CONTROL (IN)   | A5  |
| A6            | START DELAY AC BUS (IN)    | A6  |
| A7            | MMU FLASH CONTROL BUS (IN) | B1  |
| A8            | SPARE                      | B2  |
| A9            | SPARE                      | B3  |
| A10           | SPARE                      | B4  |
| B1            | SPARE                      | B5  |
| B2            | SPARE                      | B6  |
| B3            | OPT-MAN. CONT. ENABLE (IN) | C1  |
| B4            | LOGIC GROUND               | C2  |
| B5            | OPT-INTERVAL ADVANCE (IN)  | C3  |
| B6            | MMU STOP TIME (OUT)        | C4  |
| B7            | CONTROLLER STOP TIME (IN)  | C5  |
| B8            | LOCAL FLASH STATUS (IN)    | C6  |
| B9            | OPT-COORD FREE (IN)        | D1  |
| B10           | OPT-ALARM 1 (IN)           | D2  |
| C1            | OPT-ALARM 2 (IN)           | D3  |
| C2            | OPT-LOADSWITCH TEST (IN)   | D4  |
| C3            | MMU 24 VOLT MON. 2 (IN)    | D5  |
| C4            | +24 VDC                    | D6  |

TO: POL/AUX ASSY.

TO: PBA

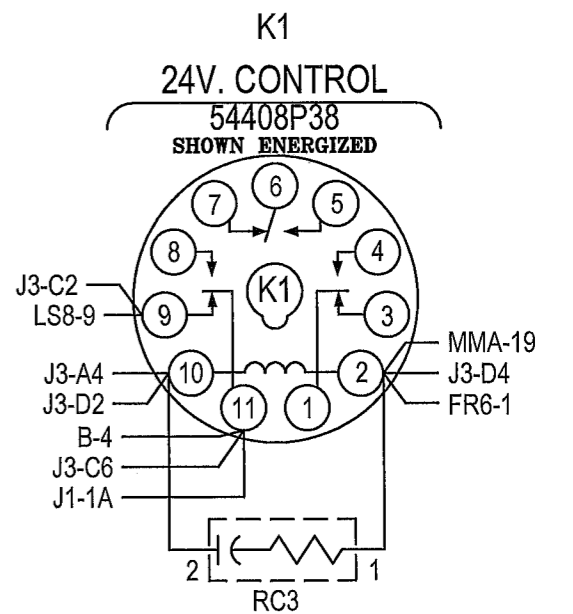
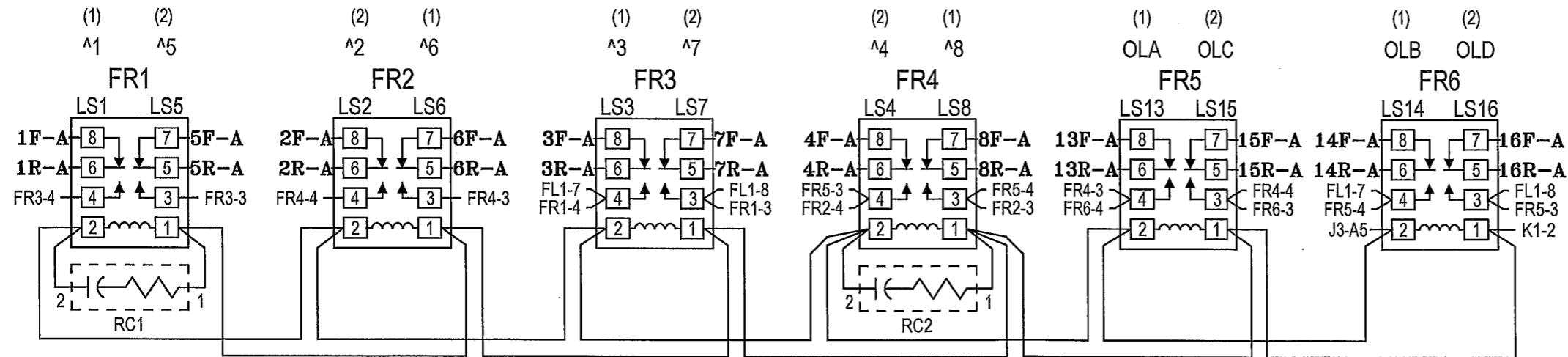
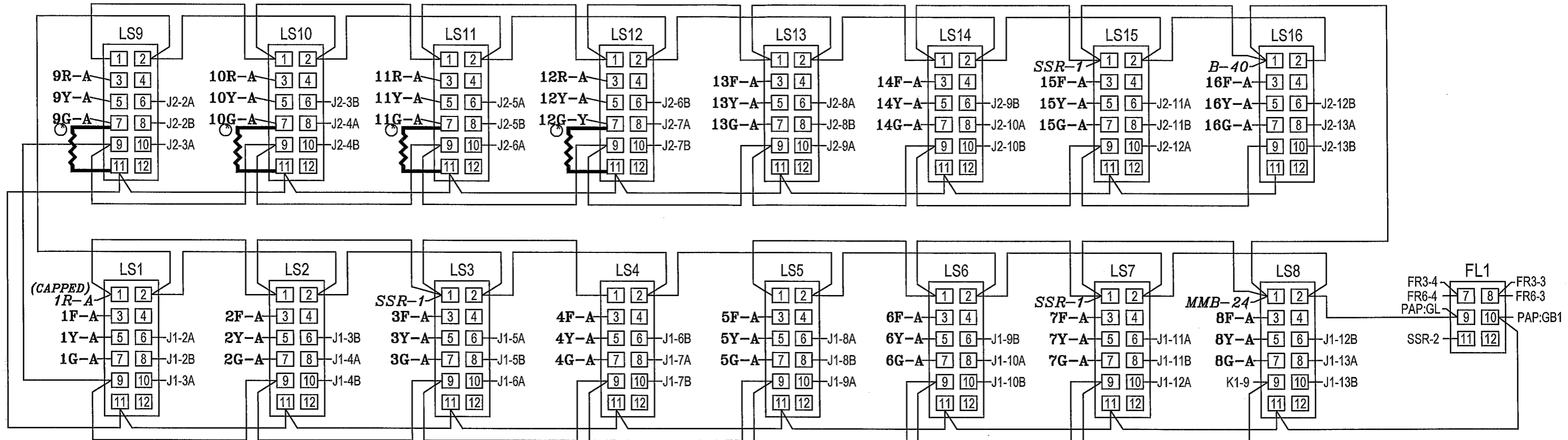
# CONFIRMATION BEACONS

- EVP 3 = 1-6
- EVP 4 = 2-5
- EVP 5 = 3-8
- EVP 6 = 4-7

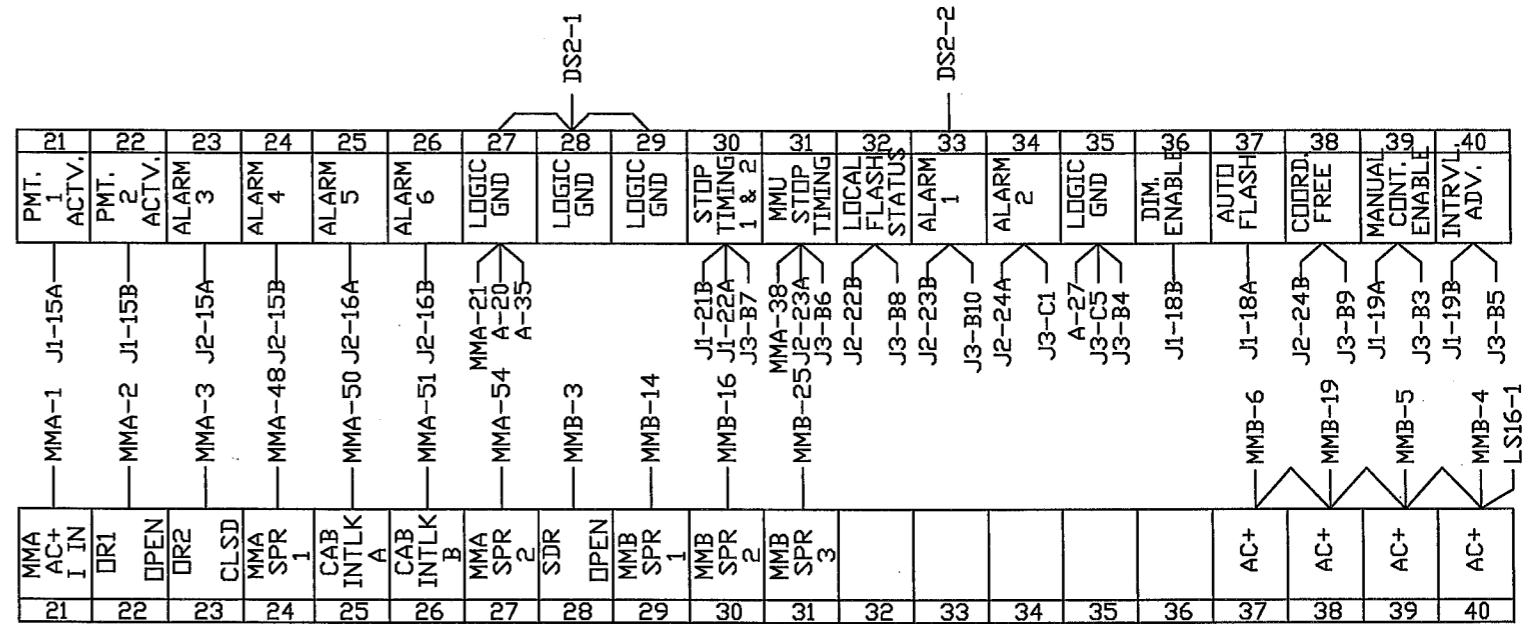
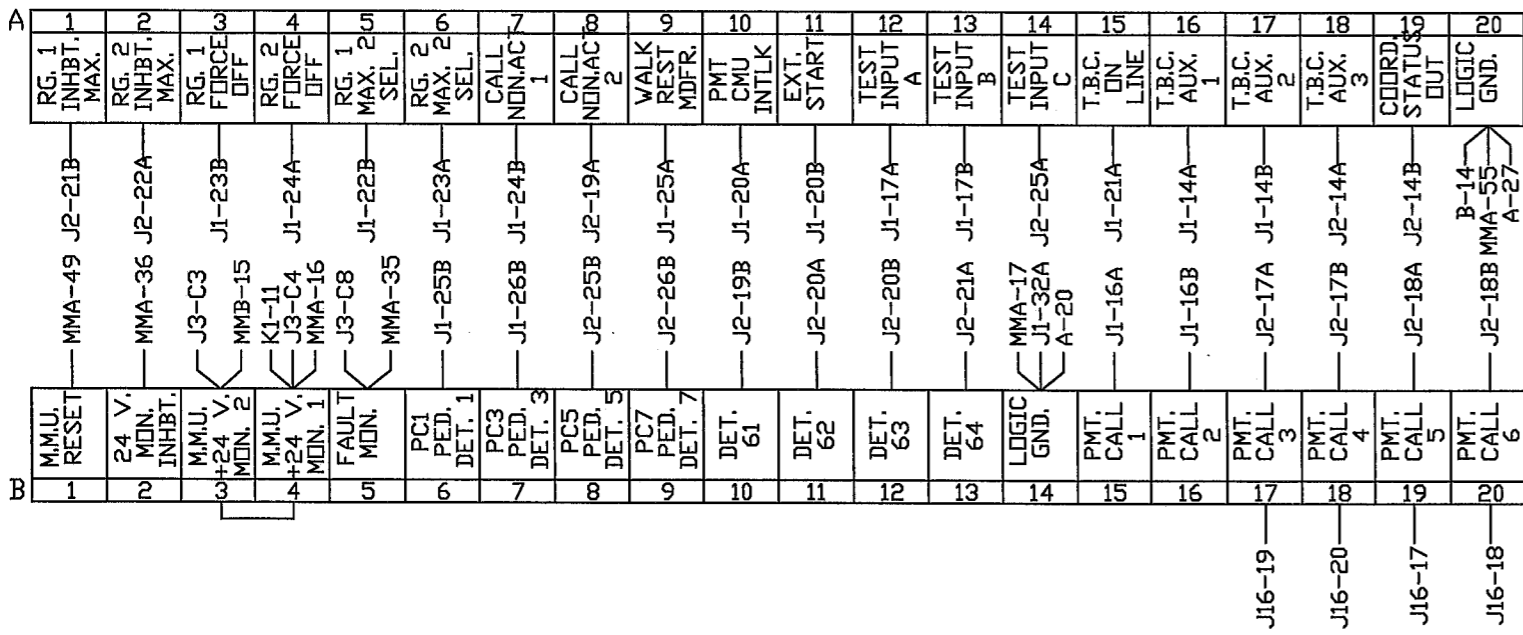


## SIGNAL FIELD TERMINALS

2.2K  
10W



### LOADBAY AND FLASH RELAY'S



## INTERFACE TERMINAL BLOCKS

| BIU #1 |                 |        |
|--------|-----------------|--------|
| PIN    | FUNCTION        | TO     |
| 1A     | +24 VDC         | K1-11  |
| 1B     | +24 VDC         | J2-1B  |
| 2A     | LS1 RED         | LS1-6  |
| 2B     | LS1 YELLOW      | LS1-8  |
| 3A     | LS1 GREEN       | LS1-10 |
| 3B     | LS2 RED         | LS2-6  |
| 4A     | LS2 YELLOW      | LS2-8  |
| 4B     | LS2 GREEN       | LS2-10 |
| 5A     | LS3 RED         | LS3-6  |
| 5B     | LS3 YELLOW      | LS3-8  |
| 6A     | LS3 GREEN       | LS3-10 |
| 6B     | LS4 RED         | LS4-6  |
| 7A     | LS4 YELLOW      | LS4-8  |
| 7B     | LS4 GREEN       | LS4-10 |
| 8A     | LS5 RED         | LS5-6  |
| 8B     | LS5 YELLOW      | LS5-8  |
| 9A     | LS5 GREEN       | LS5-10 |
| 9B     | LS6 RED         | LS6-6  |
| 10A    | LS6 YELLOW      | LS6-8  |
| 10B    | LS6 GREEN       | LS6-10 |
| 11A    | LS7 RED         | LS7-6  |
| 11B    | LS7 YELLOW      | LS7-8  |
| 12A    | LS7 GREEN       | LS7-10 |
| 12B    | LS8 RED         | LS8-6  |
| 13A    | LS8 YELLOW      | LS8-8  |
| 13B    | LS8 GREEN       | LS8-10 |
| 14A    | TBC AUX 1       | A-16   |
| 14B    | TBC AUX 2       | A-17   |
| 15A    | PMT ACT 1       | A-21   |
| 15B    | PMT ACT 2       | A-22   |
| 16A    | PMT CALL 1      | B-15   |
| 16B    | PMT CALL 2      | B-16   |
| 17A    | TEST A          | A-12   |
| 17B    | TEST B          | A-13   |
| 18A    | AUTO FLASH      | A-37   |
| 18B    | DIM. ENABLE     | A-36   |
| 19A    | MANUAL CONT.    | A-39   |
| 19B    | INT. ADVANCE    | A-40   |
| 20A    | PMT CMU INTLK   | A-10   |
| 20B    | EXT. START      | A-11   |
| 21A    | TBC ONLINE      | A-15   |
| 21B    | STOP TIME (1)   | A-30   |
| 22A    | STOP TIME (2)   | A-30   |
| 22B    | MAX. 2 (1)      | A-5    |
| 23A    | MAX. 2 (2)      | A-6    |
| 23B    | FORCE OFF (1)   | A-3    |
| 24A    | FORCE OFF (2)   | A-4    |
| 24B    | CNA 1           | A-7    |
| 25A    | WALK REST MOD.  | A-9    |
| 25B    | PED. ISO. 1     | B-6    |
| 26A    | PED. ISO. 2     | PC2-A  |
| 26B    | PED. ISO. 3     | B-7    |
| 27A    | PED. ISO. 4     | PC4-A  |
| 27B    | PED. ISO. COMM. | J3-D1  |
| 28A    | ADDR. SEL. 0    | ----   |
| 28B    | ADDR. SEL. 1    | ----   |
| 29A    | ADDR. SEL. 2    | ----   |
| 29B    | ADDR. SEL. 3    | ----   |
| 30A    | RESERVED        | ----   |
| 30B    | RESERVED        | ----   |
| 31A    | EARTH GND.      | LS12-2 |
| 31B    | LINE FREQ. REF. | J3-C9  |
| 32A    | LOGIC GND.      | B-14   |
| 32B    | LOGIC GND.      | J2-32A |

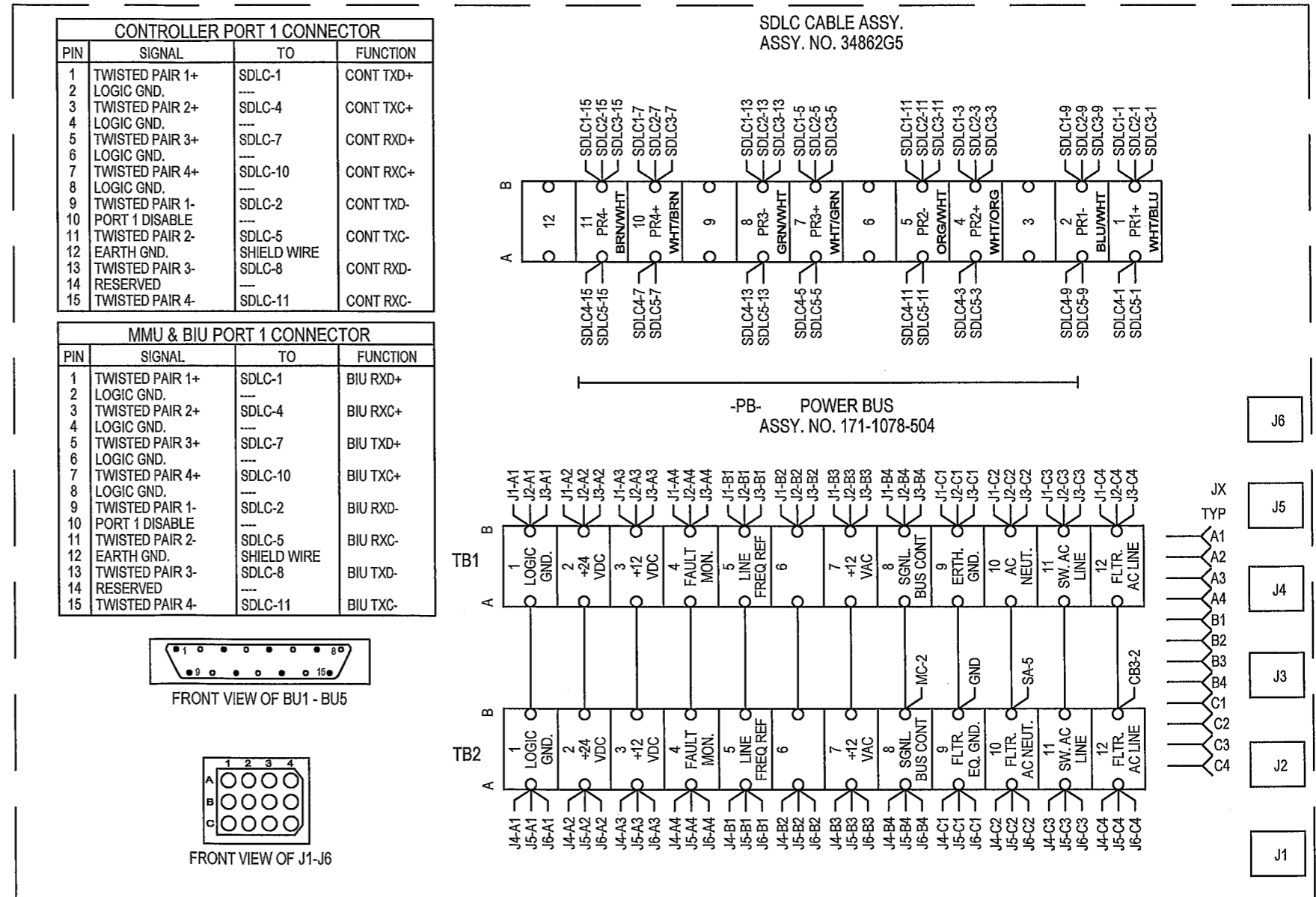
| BIU #2 |                 |         |
|--------|-----------------|---------|
| PIN    | FUNCTION        | TO      |
| 1A     | +24 VDC         | J2-1B   |
| 1B     | +24 VDC         | J1-1B   |
| 2A     | LS9 RED         | LS9-6   |
| 2B     | LS9 YELLOW      | LS9-8   |
| 3A     | LS9 GREEN       | LS9-10  |
| 3B     | LS10 RED        | LS10-6  |
| 4A     | LS10 YELLOW     | LS10-8  |
| 4B     | LS10 GREEN      | LS10-10 |
| 5A     | LS11 RED        | LS11-6  |
| 5B     | LS11 YELLOW     | LS11-8  |
| 6A     | LS11 GREEN      | LS11-10 |
| 6B     | LS12 RED        | LS12-6  |
| 7A     | LS12 YELLOW     | LS12-8  |
| 7B     | LS12 GREEN      | LS12-10 |
| 8A     | LS13 RED        | LS13-6  |
| 8B     | LS13 YELLOW     | LS13-8  |
| 9A     | LS13 GREEN      | LS13-10 |
| 9B     | LS14 RED        | LS14-6  |
| 10A    | LS14 YELLOW     | LS14-8  |
| 10B    | LS14 GREEN      | LS14-10 |
| 11A    | LS15 RED        | LS15-6  |
| 11B    | LS15 YELLOW     | LS15-8  |
| 12A    | LS15 GREEN      | LS15-10 |
| 12B    | LS16-RED        | LS16-6  |
| 13A    | LS16-YELLOW     | LS16-8  |
| 13B    | LS16-GREEN      | LS16-10 |
| 14A    | TBC AUX 3       | A-18    |
| 14B    | COORD. STATUS   | A-19    |
| 15A    | ALARM 3         | A-23    |
| 15B    | ALARM 4         | A-24    |
| 16A    | ALARM 5         | A-25    |
| 16B    | ALARM 6         | A-26    |
| 17A    | PMT CALL 3      | B-17    |
| 17B    | PMT CALL 4      | B-18    |
| 18A    | PMT CALL 5      | B-19    |
| 18B    | PMT CALL 6      | B-20    |
| 19A    | CNA 2           | A-8     |
| 19B    | VEH. DET. 61    | B-10    |
| 20A    | VEH. DET. 62    | B-11    |
| 20B    | VEH. DET. 63    | B-12    |
| 21A    | VEH. DET. 64    | B-13    |
| 21B    | INHIBIT MAX (1) | A-1     |
| 22A    | INHIBIT MAX (2) | A-2     |
| 22B    | LOCAL FLASH     | A-32    |
| 23A    | MMU FLASH       | A-31    |
| 23B    | ALARM 1         | A-33    |
| 24A    | ALARM 2         | A-34    |
| 24B    | COORD FREE IN   | A-38    |
| 25A    | TEST C          | A-14    |
| 25B    | PED. ISO. 5     | B-8     |
| 26A    | PED. ISO. 6     | PC6-A   |
| 26B    | PED. ISO. 7     | B-9     |
| 27A    | PED. ISO. 8     | PC8-A   |
| 27B    | PED. ISO. COMM. | J1-27B  |
| 28A    | ADDR. SEL. 0    | J2-32A  |
| 28B    | ADDR. SEL. 1    | ----    |
| 29A    | ADDR. SEL. 2    | ----    |
| 29B    | ADDR. SEL. 3    | ----    |
| 30A    | RESERVED        | ----    |
| 30B    | RESERVED        | ----    |
| 31A    | EARTH GND.      | J1-31A  |
| 31B    | LINE FREQ. REF. | J1-31B  |
| 32A    | LOGIC GND.      | J1-32B  |
| 32B    | LOGIC GND.      | J2-32A  |

| MAIN PANEL CONTROL POWER<br>C/C 171-1083-504 |                            |
|--|----------------------------|
| PIN  | FUNCTION                   |
| A1   | LOGIC GROUND               |
| A2   | +24 VDC (IN)               |
| A3   | ----                       |
| A4   | MMU FAULT MONITOR (IN)     |
| B1   | LINE FREQ. REFERENCE (IN)  |
| B2   | ----                       |
| B3   | +12 VAC (IN)               |
| B4   | SIGNAL BUS CONTROL (IN)    |
| C1   | ----                       |
| C2   | FILTERED AC NEUTRAL (IN)   |
| C3   | CONT. EQUIP. AC LINE (OUT) |
| C4   | FILTERED AC LINE (IN)      |

| CONTROLLER POWER (CCA2)<br>C/C 171-1083-503 |     |               |        |
|---|-----|---------------|--------|
| 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<br>C/C 171-1083-502 |            |       |
|---|------------|-------|
| PIN   | FUNCTION   | TO    |
| A   | AC NEUTRAL | PB-10 |
| B   | ----       | ----  |
| C   | AC LINE    | PB-11 |
| D   | +12 VDC    | PB-3  |
| E   | +24 VDC    | PB-2  |
| F   | RESERVED   | ----  |
| F   | FAULT MON. | PB-4  |
| G   | LOGIC GND. | PB-1  |
| H   | EARTH GND. | PB-9  |
| I   | +12 VAC    | ----  |
| J   | RESERVED   | ----  |
| J   | EARTH GND. | PIN H |

| CABINET POWER SUPPLY<br>C/C 171-1083-511 |                     |       |
|--|---------------------|-------|
| 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 |



## BIU AND CONNECTING CABLES

### 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-A2 | MMU POWER     |
| B                   | A-2  | OUT RLY 1 OPEN   | B22    |               | B                   | B-2  | S. DLY RLY COMM. | J3-A6 | 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-D5 | 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-A7  | 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    | 12Y-A  | VEH. 7 FYA    | Y                   | B-22 | CH. 16 RED       | 16R-A | OLD RED       |
| Z                   | A-23 | CH. 11 YELLOW    | 11Y-A  | VEH. 5 FYA    | 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    | 10Y-A  | VEH. 3 FYA    | b                   | B-25 | (SPARE 3)        | B31   |               |
| c                   | A-26 | CH. 9 YELLOW     | 9Y-A   | VEH. 1 FYA    | c                   | B-26 | LOCAL FLASH IN   | -T-   | 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        |                     |      |                  |       |               |
| 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-A3  |               |                     |      |                  |       |               |
| 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    |               |                     |      |                  |       |               |
| 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.    |                     |      |                  |       |               |

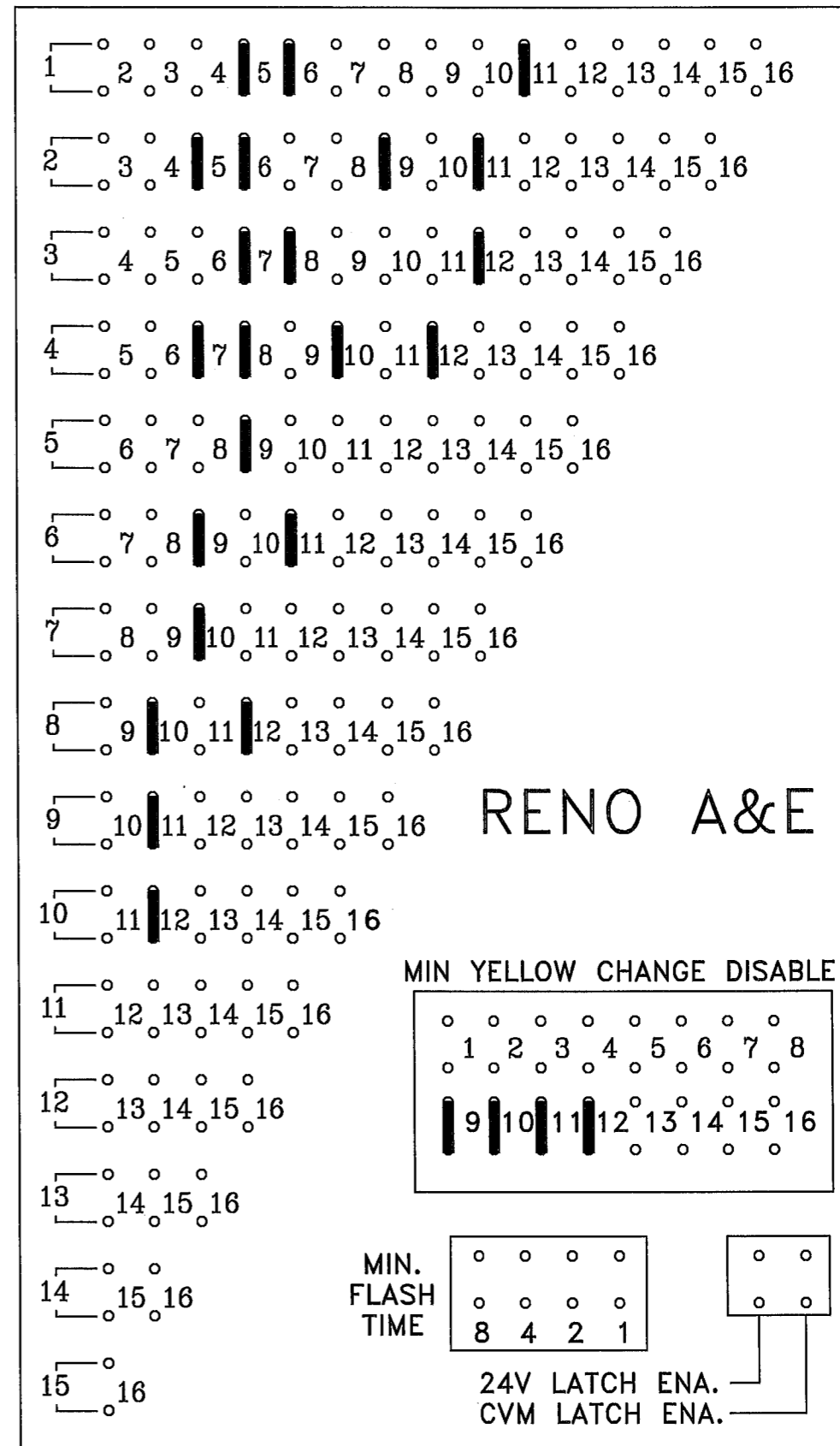
#### NOTES FOR 16 CHANNEL M.M.U.

- (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 DISABLE 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. / VEH. 1 FYA |
| CH. 10 = | L/S 10 = | ^4 PED. / VEH. 3 FYA |
| CH. 11 = | L/S 11 = | ^6 PED. / VEH. 5 FYA |
| CH. 12 = | L/S 12 = | ^8 PED. / VEH. 7 FYA |
| CH. 13 = | L/S 13 = | O'LAP A VEH.         |
| CH. 14 = | L/S 14 = | O'LAP B VEH.         |
| CH. 15 = | L/S 15 = | O'LAP C VEH.         |
| CH. 16 = | L/S 16 = | O'LAP D VEH.         |

### MMU PROGRAM CARD



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

# DETECTOR RACK #1 34030G1

|                        |                              |                              |                              |                              |                              |                              |                              |                              |   |   |           |
|------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|---|---|-----------|
| POWER SUPPLY OR B.I.U. | L3                           | L1                           | L7                           | L5                           | L11                          | L9                           | L15                          | L13                          | PMT 5<br><br><input type="checkbox"/> 2CH<br>OPTICOM/<br>OPIC<br>CH. C<br>CH. D | PMT 3<br><br><input type="checkbox"/> 4CH<br><input type="checkbox"/> 2CH<br>OPTICOM/<br>OPIC<br>CH. A<br>CH. B | PGM. CARD |
|                        | 5-1                          | 1-1                          | 6-1                          | 2-1                          | 7-1                          | 3-1                          | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH |   |   |           |
|                        | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH |   |   |           |
|                        | 5-2                          | 1-2                          | 6-2                          | 2-2                          | 7-2                          | 3-2                          | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH |   |   |           |
|                        | L4                           | L2                           | L8                           | L6                           | L12                          | L10                          | L16                          | L14                          | PMT 6   | PMT 4   |           |

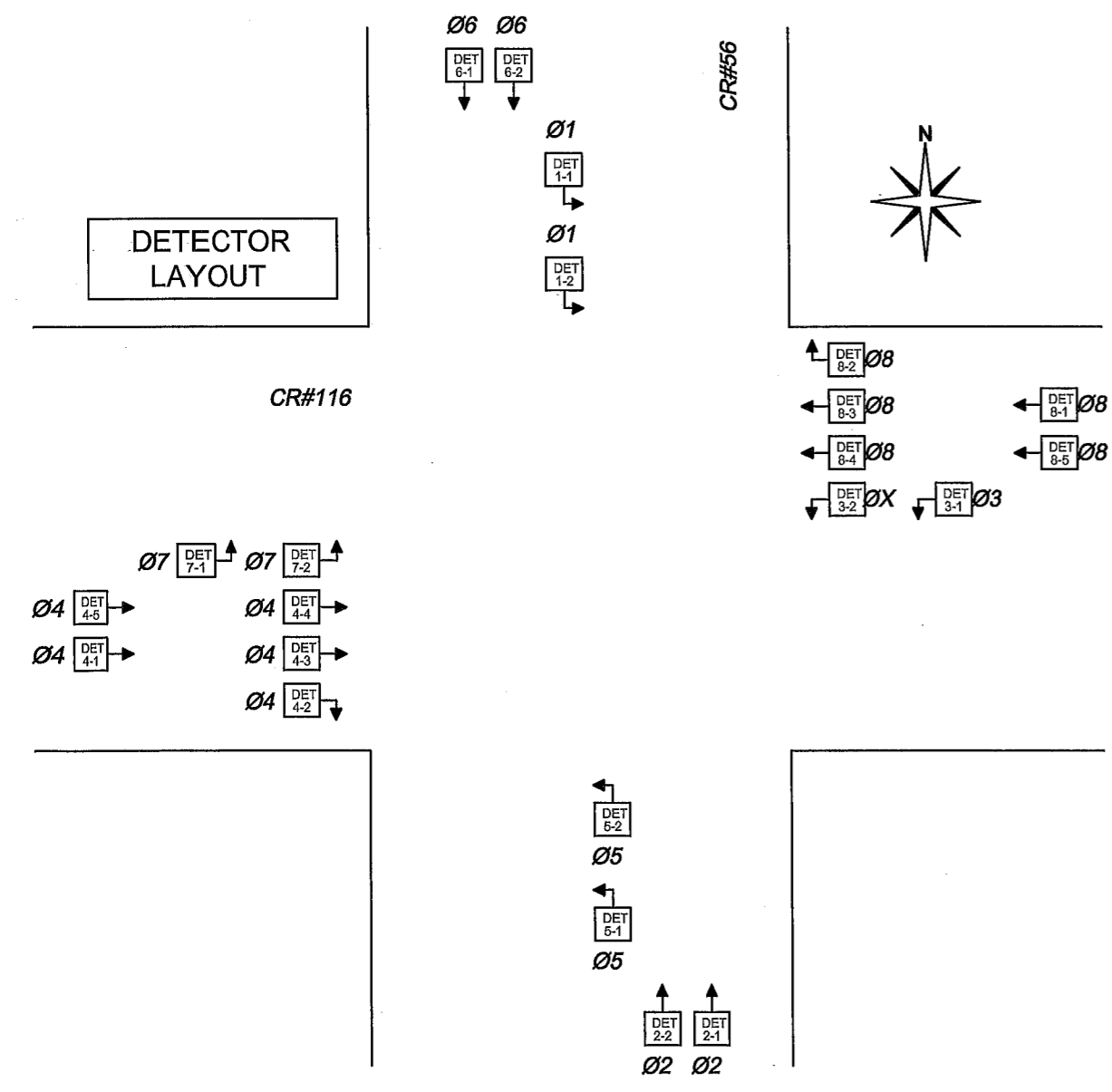
|   |  |   |   |  |   |  |
|---|--|---|---|--|---|--|
| <input checked="" type="checkbox"/> J13<br>C/C 171-1083-515<br>DC POWER | <input checked="" type="checkbox"/> J16<br>C/C 33284G8<br>EXP. OUTPUTS | <input checked="" type="checkbox"/> J14<br>C/C 33284G2<br>LPS 1-8 | <input type="checkbox"/> J18<br>C/C 33284G9<br>SYS. OUTPUTS | <input checked="" type="checkbox"/> J15<br>C/C 33284G3<br>LPS 9-16 | <input checked="" type="checkbox"/> J17<br>C/C 171-1083-515<br>AC POWER | <input checked="" type="checkbox"/> J19<br>C/C 33284G17<br>PGM. CARD |
|---|--|---|---|--|---|--|

①

| ADDRESS TABLE |   |         |        |  |         |
|---------------|---|---------|--------|--|---------|
| RACK #        | JMPR  | DET. #S | RACK # | JMPR   | DET. #S |
| 1             | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | 1-16    | 5      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 65-80   |
| 2             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                                  | 17-32   | 6      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 81-96   |
| 3             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                                  | 33-48   | 7      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 97-112  |
| 4             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                                  | 49-64   | 8      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 113-128 |

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

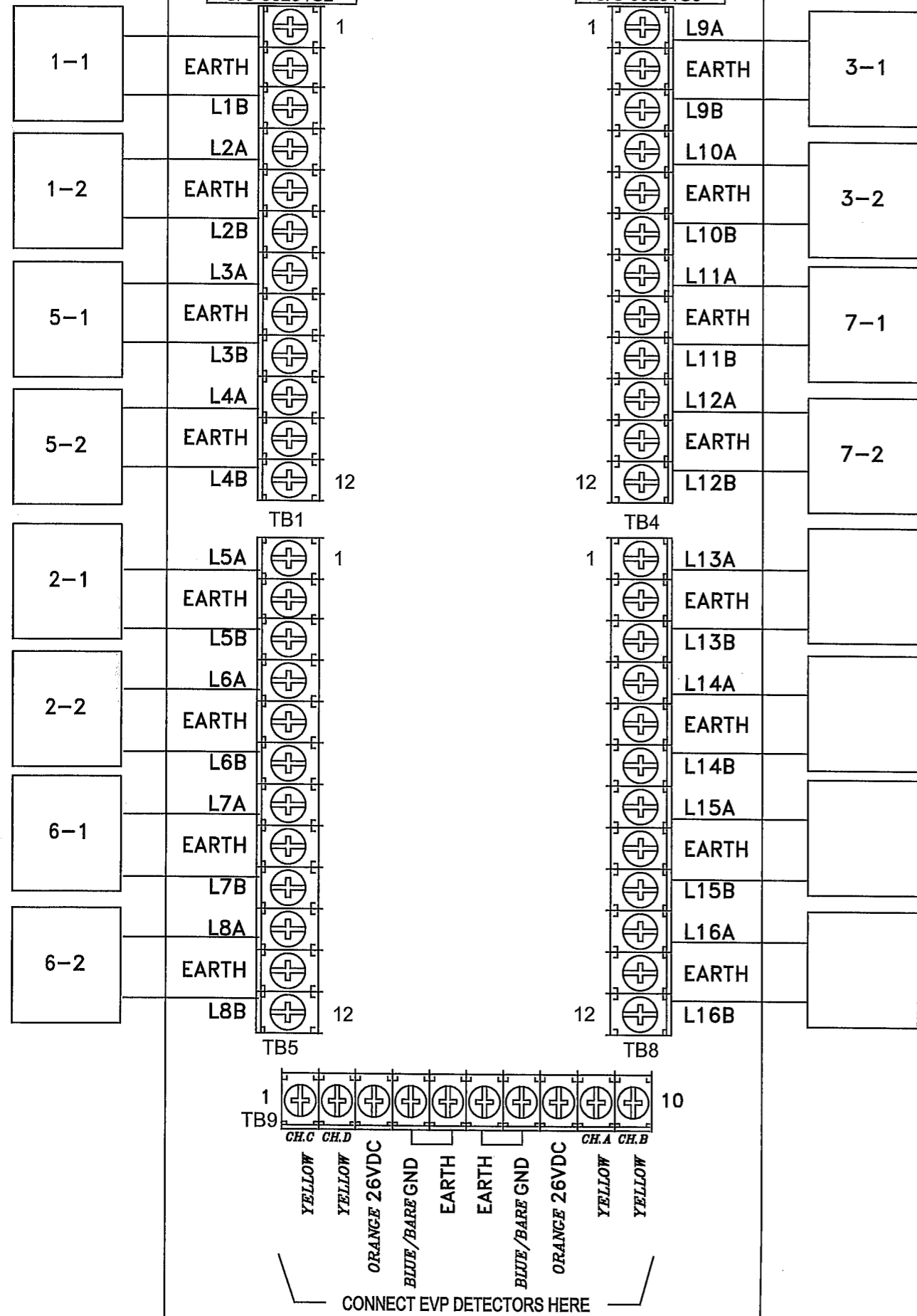
DETECTOR LAYOUT



## 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 | JP30 |
| ① TS-1           | NO  | NO  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |      |      |
| ② TS-2           | YES | YES | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |      |      |
| ③ LM-632T 262-FC | NO  | NO  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |      |      |
| ④ MAG.           | NO  | NO  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |      |      |

DETECTOR LOOP  
INTERFACE #1  
ASSY. 34040G1



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<br>C/C 171-1083-515 |               |                      |       |
|-------------------------------------|---------------|----------------------|-------|
| P1/<br>DR:J13                       | P2/<br>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<br>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

# DETECTOR RACK #2 34030G1

|                        |                              |                              |                              |                              |                              |                              |                              |                              |          |          |           |                              |
|------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|----------|----------|-----------|------------------------------|
| POWER SUPPLY OR B.I.U. | L3                           | L1                           | L7                           | L5                           | L11                          | L9                           | L15                          | L13                          | NOT USED | NOT USED | PGM. CARD |                              |
|                        | 4-3                          | 4-1                          | 8-3                          | 8-1                          |                              | 4-5                          |                              |                              |          |          |           |                              |
|                        | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH | <input type="checkbox"/> 2CH |          |          |           | <input type="checkbox"/> 2CH |
|                        | 4-4                          | 4-2                          | 8-4                          | 8-2                          |                              | 8-5                          |                              |                              |          |          |           |                              |
|                        | L4                           | L2                           | L8                           | L6                           | L12                          | L10                          | L16                          | L14                          |          |          |           |                              |

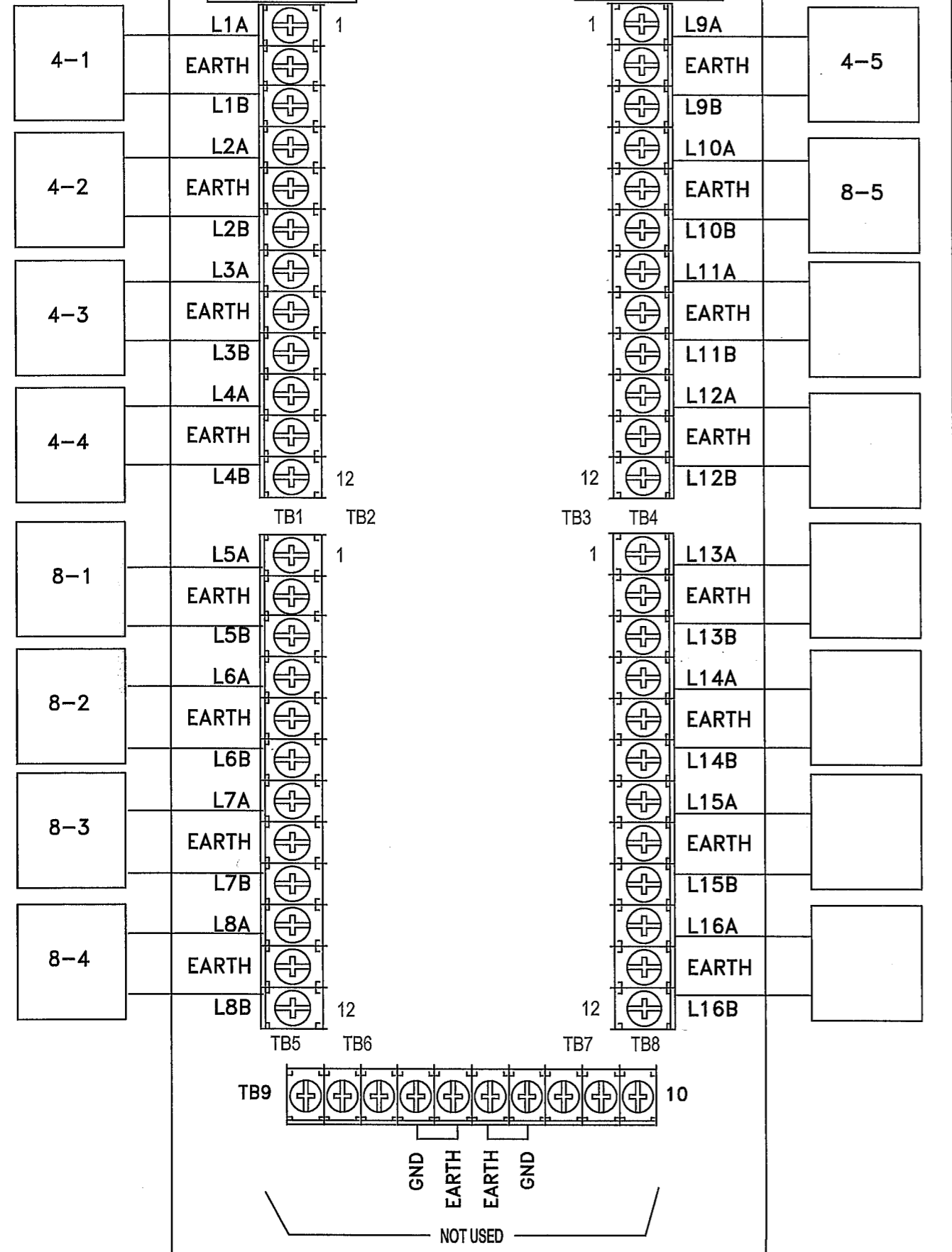
|  |  |  |  |   |   |  |
|--|--|--|--|---|---|--|
| <input checked="" type="checkbox"/> <b>J13</b><br>C/C 33284G10<br>DC POWER | <input type="checkbox"/> <b>J16</b><br>C/C 33284G8<br>EXP. OUTPUTS | <input checked="" type="checkbox"/> <b>J14</b><br>C/C 33284G2<br>LPS 1-8 | <input type="checkbox"/> <b>J18</b><br>C/C 33284G9<br>SYS. OUTPUTS | <input checked="" type="checkbox"/> <b>J15</b><br>C/C 33284G3<br>LPS 9-16 | <input checked="" type="checkbox"/> <b>J17</b><br>C/C 33284G6<br>AC POWER | <input type="checkbox"/> <b>J19</b><br>C/C 33284G17<br>PGM. CARD |
|--|--|--|--|---|---|--|

| ADDRESS TABLE |      |         |
|---------------|------|---------|
| RACK #        | JMPR | DET. #S |
| 1             |      | 1-16    |
| 2             |      | 17-32   |
| 3             |      | 33-48   |
| 4             |      | 49-64   |

- ① INSTALL JUMPERS ON JP31 THRU JP34 WHEN A SHELF MOUNT POWER SUPPLY IS USED. WARNING - DO NOT INSTALL JUMPERS WHEN A PLUG-IN POWER SUPPLY IS USED.
- ② INSTALL JUMPERS ON JP38 - JP55 WHEN PGM. CARD IS NOT USED.
- ③ PROGRAM CARD AND PLUG-IN POWER SUPPLY ARE FOR TS-1 APPLICATIONS ONLY. REMOVE FOR TS-2 APPLICATIONS.
- ④ PROGRAM JUMPERS USING CONFIGURATION NUMBER AS SHOWN BY ASTERISK.

| DETECTOR RACK PROGRAMMING JUMPERS |      |      |      |           |                             |     |     |     |     |     |     |      |                             |      |      |      |      |      |      |      |                             |      |      |      |     |      |      |      |                             |      |      |     |      |      |   |  |                         |
|-----------------------------------|------|------|------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|------|------|------|-----|------|------|------|-----------------------------|------|------|-----|------|------|---|--|-------------------------|
| DC POWER ①                        |      |      |      | DET. TYPE | CONFIGURATION ④<br>SLOT 1/2 |     |     |     |     |     |     |      | CONFIGURATION ④<br>SLOT 3/4 |      |      |      |      |      |      |      | CONFIGURATION ④<br>SLOT 5/6 |      |      |      |     |      |      |      | CONFIGURATION ④<br>SLOT 7/8 |      |      |     |      |      |   |  | DET. CMNS.<br>JP38-JP55 |
| JP31                              | JP32 | JP33 | JP34 |           | JP3                         | JP4 | JP5 | JP6 | JP7 | JP8 | JP9 | JP10 | JP11                        | JP12 | JP13 | JP14 | JP15 | JP16 | JP17 | JP18 | JP19                        | JP20 | JP21 | JP22 | TP1 | JP23 | JP24 | JP25 | JP26                        | JP27 | JP28 | TP2 | JP29 | JP30 |   |  |                         |
|                                   |      |      |      | 1         | TS-1                        |     |     |     |     |     |     |      |                             |      |      |      |      |      |      |      |                             |      |      |      |     |      |      |      |                             |      |      |     |      |      | ② |  |                         |
|                                   |      |      |      | 2         | * TS-2                      |     |     |     |     |     |     |      |                             |      |      |      |      |      |      |      |                             |      |      |      |     |      |      |      |                             |      |      |     |      |      | ② |  |                         |
|                                   |      |      |      | 3         | LM-632T<br>262-FC           |     |     |     |     |     |     |      |                             |      |      |      |      |      |      |      |                             |      |      |      |     |      |      |      |                             |      |      |     |      | ②    |   |  |                         |
|                                   |      |      |      | 4         | MAG.                        |     |     |     |     |     |     |      |                             |      |      |      |      |      |      |      |                             |      |      |      |     |      |      |      |                             |      |      |     |      | ②    |   |  |                         |
|                                   |      |      |      | 5         | LM-642()<br>(TS-2)          |     |     |     |     |     |     |      |                             |      |      |      |      |      |      |      |                             |      |      |      |     |      |      |      |                             |      |      |     | ②    |      |   |  |                         |

DETECTOR LOOP  
INTERFACE #2  
ASSY. 34040G1



| DET. LOOPS 9-16 (J15) C/C 33284G3 |          |              |
|-----------------------------------|----------|--------------|
| PIN                               | SIGNAL   | TO           |
| 1                                 | LOOP 9+  | LPI2:TB1-1   |
| 2                                 | LOOP 9-  | LPI2: TB1-3  |
| 3                                 | LOOP 10+ | LPI2: TB1-4  |
| 4                                 | LOOP 10- | LPI2: TB1-6  |
| 5                                 | LOOP 11+ | LPI2: TB1-7  |
| 6                                 | LOOP 11- | LPI2: TB1-9  |
| 7                                 | LOOP 12+ | LPI2: TB1-10 |
| 8                                 | LOOP 12- | LPI2: TB1-12 |
| 9                                 | LOOP 13+ | LPI2: TB2-1  |
| 10                                | LOOP 13- | LPI2: TB2-3  |
| 11                                | LOOP 14+ | LPI2: TB2-4  |
| 12                                | LOOP 14- | LPI2: TB2-6  |
| 13                                | LOOP 15+ | LPI2: TB2-7  |
| 14                                | LOOP 15- | LPI2: TB2-9  |
| 15                                | LOOP 16+ | LPI2: TB2-10 |
| 16                                | LOOP 16- | LPI2: TB2-12 |
| 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: TB2-1   |
| 10                               | LOOP 5-             | LPI1: TB2-3   |
| 11                               | LOOP 6+             | LPI1: TB2-4   |
| 12                               | LOOP 6-             | LPI1: TB2-6   |
| 13                               | LOOP 7+             | LPI1: TB2-7   |
| 14                               | LOOP 7-             | LPI1: TB2-9   |
| 15                               | LOOP 8+             | LPI1: TB2-10  |
| 16                               | LOOP 8-             | LPI1: TB2-12  |
| 17                               | PMT. DET. CH. A     | LPI1: TB3-1   |
| 18                               | PMT. DET. CH. B     | LPI1: TB3-2   |
| 19                               | KEY PIN             |               |
| 20                               | PMT. CH. A/B +26VDC | LPI1: TB3-3   |
| 21                               | PMT. DC GROUND      | LPI1: TB3-4,7 |
| 22                               | PMT. CH. C/D +26VDC | LPI1: TB3-8   |
| 23                               | PMT. DET. CH. C     | LPI1: TB3-9   |
| 24                               | PMT. DET. CH. D     | LPI1: TB3-10  |
| 25                               | ----                |               |
| 26                               | ----                |               |

| DET. RACK POWER C/C 171-1083-515 |           |                      |       |
|----------------------------------|-----------|----------------------|-------|
| 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         | ----  |

DETECTOR LOOP INTERFACE

|              |      |    |   |     |     |     |      |    |   |     |     |     |       |    |   |     |     |     |       |    |   |     |     |     |      |     |        |           |
|--------------|------|----|---|-----|-----|-----|------|----|---|-----|-----|-----|-------|----|---|-----|-----|-----|-------|----|---|-----|-----|-----|------|-----|--------|-----------|
| <b>B.I.U</b> | DET  | PH | F | DET | DLY | EXT | DET  | PH | F | DET | DLY | EXT | DET   | PH | F | DET | DLY | EXT | DET   | PH | F | DET | DLY | EXT | EVP  | PH  | POLE # | CONT CH # |
|              | CH 1 | 1  | 1 | 1-1 |     |     | CH 5 | 2  | 1 | 2-1 |     |     | CH 9  | 3  | 1 | 3-1 |     |     | CH 13 |    |   |     |     |     | CH 1 | 1-6 | 3      | 3         |
|              | CH 2 | 1  | 1 | 1-2 |     |     | CH 6 | 2  | 1 | 2-2 |     |     | CH 10 | 3  | 1 | 3-2 |     |     | CH 14 |    |   |     |     |     | CH 2 | 2-5 | 1      | 4         |
|              | CH 3 | 5  | 1 | 5-1 |     |     | CH 7 | 6  | 1 | 6-1 |     |     | CH 11 | 7  | 1 | 7-1 |     |     | CH 15 |    |   |     |     |     | CH 3 | 3-8 | 4      | 5         |
|              | CH 4 | 5  | 1 | 5-2 |     |     | CH 8 | 6  | 1 | 6-2 |     |     | CH 12 | 7  | 1 | 7-2 |     |     | CH 16 |    |   |     |     |     | CH 4 | 4-7 | 2      | 6         |

|              |       |    |     |     |      |     |       |    |     |     |      |     |       |    |     |     |     |     |       |    |   |     |     |     |  |  |  |  |
|--------------|-------|----|-----|-----|------|-----|-------|----|-----|-----|------|-----|-------|----|-----|-----|-----|-----|-------|----|---|-----|-----|-----|--|--|--|--|
| <b>B.I.U</b> | DET   | PH | F   | DET | DLY  | EXT | DET   | PH | F   | DET | DLY  | EXT | DET   | PH | F   | DET | DLY | EXT | DET   | PH | F | DET | DLY | EXT |  |  |  |  |
|              | CH 17 | 4  | 3/8 | 4-1 |      | 3.0 | CH 21 | 8  | 3/8 | 8-1 |      | 3.5 | CH 25 | 4  | 3/8 | 4-5 |     | 3.0 | CH 29 |    |   |     |     |     |  |  |  |  |
|              | CH 18 | 4  | 7   | 4-2 | 10.0 |     | CH 22 | 8  | 7   | 8-2 | 10.0 |     | CH 26 | 8  | 3/8 | 8-5 |     | 3.5 | CH 30 |    |   |     |     |     |  |  |  |  |
|              | CH 19 | 4  | 1   | 4-3 |      |     | CH 23 | 8  | 1   | 8-3 |      |     | CH 27 |    |     |     |     |     | CH 31 |    |   |     |     |     |  |  |  |  |
|              | CH 20 | 4  | 1   | 4-4 |      |     | CH 24 | 8  | 1   | 8-4 |      |     | CH 28 |    |     |     |     |     | CH 32 |    |   |     |     |     |  |  |  |  |

**EVP SENSORS**

| CABLE | DISCR. CHAN. | PHASES | POLE# | TERMINAL TB9 |       |     |
|-------|--------------|--------|-------|--------------|-------|-----|
|       |              |        |       | SIGNAL       | DC(+) | GND |
| 26    | 1            | 1-6    | 3     | 9            | 8     | 7   |
| 22    | 2            | 2-5    | 1     | 10           | 8     | 7   |
| 28    | 3            | 3-8    | 4     | 1            | 3     | 4   |
| 24    | 4            | 4-7    | 2     | 2            | 3     | 4   |
|       |              |        |       |              |       |     |

**VEHICLE SIGNALS**

| CABLE | SIGNAL  | TERMINAL |     |    |    |    |    |    |
|-------|---------|----------|-----|----|----|----|----|----|
|       |         | G        | FLA | Y  | R  | G  | Y  | R  |
| 6     | 1-1     | 1        | 3   | 5  | 7  |    |    |    |
| 4     | 1-2     | 2        | 4   | 6  | 8  |    |    |    |
| 1     | 2-1,2-3 |          |     |    |    | 9  | 11 | 13 |
| 1     | 2-2     |          |     |    |    | 10 | 12 | 14 |
| 8     | 3-1     | 15       | 17  | 19 | 21 |    |    |    |
| 6     | 3-2     | 16       | 18  | 20 | 22 |    |    |    |
| 3     | 4-1,4-3 |          |     |    |    | 23 | 25 | 27 |
| 3     | 4-2     |          |     |    |    | 24 | 26 | 28 |
| 2     | 5-1     | 29       | 31  | 33 | 35 |    |    |    |
| 8     | 5-2     | 30       | 32  | 34 | 36 |    |    |    |
| 5     | 6-1,6-3 |          |     |    |    | 37 | 39 | 41 |
| 5     | 6-2     |          |     |    |    | 38 | 40 | 42 |
| 4     | 7-1     | 43       | 45  | 47 | 49 |    |    |    |
| 2     | 7-2     | 44       | 46  | 48 | 50 |    |    |    |
| 7     | 8-1,8-3 |          |     |    |    | 51 | 53 | 55 |
| 7     | 8-2     |          |     |    |    | 52 | 54 | 56 |

**VEH DETECTORS**

| CABLE | DET | SLOT | FUNC | RACK | TERMINAL |
|-------|-----|------|------|------|----------|
| 46    | 1-1 | 1    | 1    | 1    | L1       |
| 47    | 1-2 | 2    | 1    | 1    | L2       |
| 35    | 2-1 | 5    | 1    | 1    | L5       |
| 36    | 2-2 | 6    | 1    | 1    | L6       |
| 33    | 3-1 | 9    | 1    | 1    | L9       |
| 34    | 3-2 | 10   | 1    | 1    | L10      |
| 42    | 4-1 | 17   | 3,8  | 2    | L1       |
| 39    | 4-2 | 18   | 7    | 2    | L2       |
| 40    | 4-3 | 19   | 1    | 2    | L3       |
| 41    | 4-4 | 20   | 1    | 2    | L4       |
| 37    | 5-1 | 3    | 1    | 1    | L3       |
| 38    | 5-2 | 4    | 1    | 1    | L4       |
| 45    | 6-1 | 7    | 1    | 1    | L7       |
|       | 6-2 | 8    | 1    | 1    | L8       |
| 43    | 7-1 | 11   | 1    | 1    | L11      |
| 44    | 7-2 | 12   | 1    | 1    | L12      |
| 32    | 8-1 | 21   | 3,8  | 2    | L5       |
| 29    | 8-2 | 22   | 7    | 2    | L6       |
| 30    | 8-3 | 23   | 1    | 2    | L7       |
| 31    | 8-4 | 24   | 1    | 2    | L8       |
| 61    | 4-5 | 25   | 3,8  | 2    | L9       |
| 60    | 8-5 | 26   | 3,8  | 2    | L10      |
|       |     |      |      |      |          |

**PED PUSHBUTTONS**

| CABLE | PPB | TERMINAL | RETURN |
|-------|-----|----------|--------|
| 10    | 2-1 | PC2      | GB1    |
| 9     | 2-2 | PC2      | GB1    |
| 11    | 4-1 | PC4      | GB1    |
| 10    | 4-2 | PC4      | GB1    |
| 12    | 6-1 | PC6      | GB1    |
| 11    | 6-2 | PC6      | GB1    |
| 9     | 8-1 | PC8      | GB1    |
| 12    | 8-2 | PC8      | GB1    |
|       |     |          |        |

**PED SIGNALS**

| CABLE | SIGNAL | TERMINAL |    |
|-------|--------|----------|----|
|       |        | WK       | DW |
| 15    | 2-1    | 57       | 61 |
| 13    | 2-2    | 58       | 62 |
| 17    | 4-1    | 63       | 67 |
| 16    | 4-2    | 64       | 68 |
| 19    | 6-1    | 69       | 73 |
| 18    | 6-2    | 70       | 74 |
| 14    | 8-1    | 75       | 79 |
| 20    | 8-2    | 76       | 80 |
|       |        |          |    |

**EVP VERIFY LIGHTS**

| CABLE | CONTR. CHAN. | PHASES | POLE# | TERM. |
|-------|--------------|--------|-------|-------|
| 25    | 3            | 1-6    | 3     | 59    |
| 21    | 4            | 2-5    | 1     | 65    |
| 27    | 5            | 3-8    | 4     | 71    |
| 23    | 6            | 4-7    | 2     | 77    |
|       |              |        |       |       |