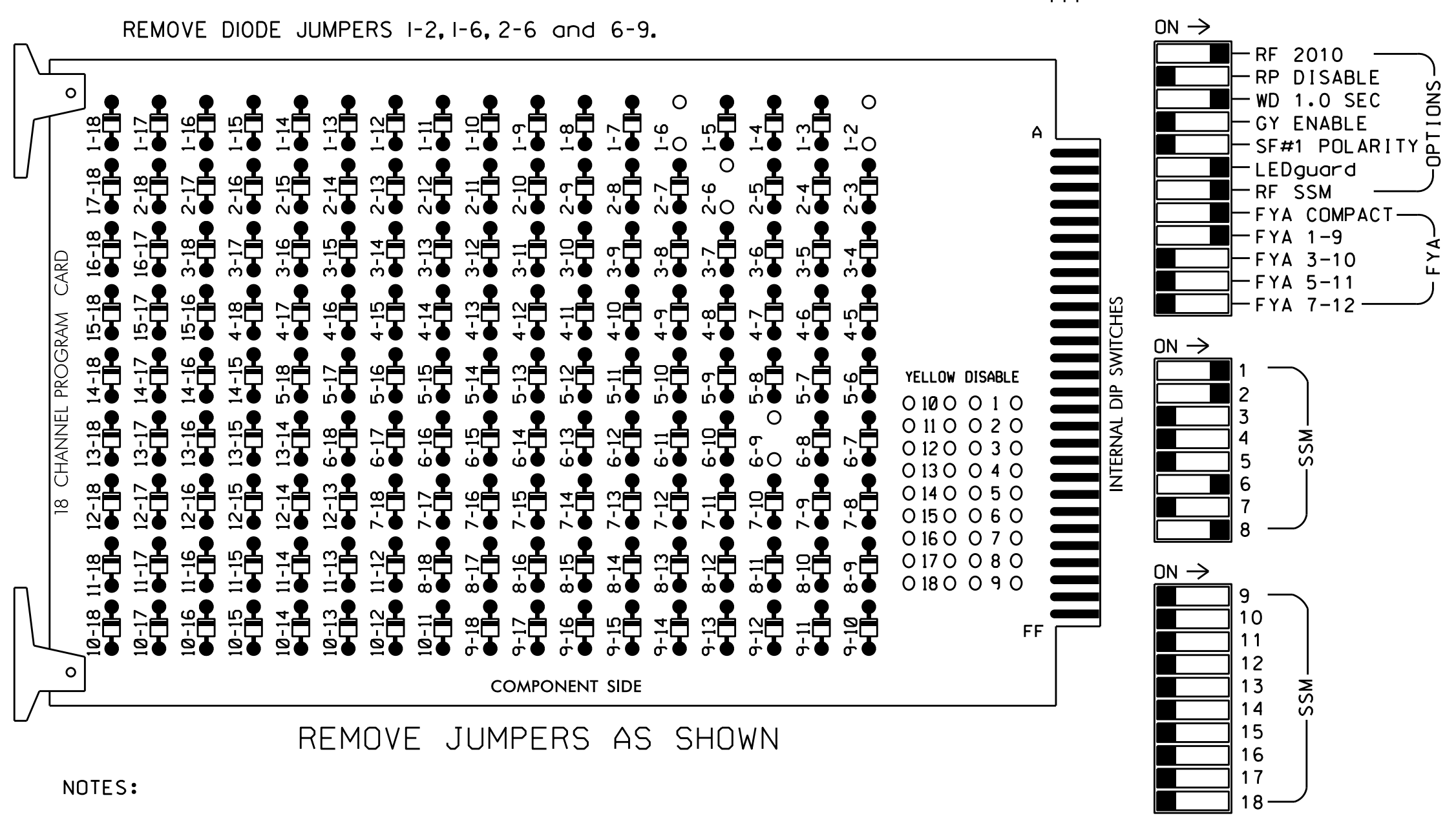


**EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL**

(remove jumpers and set switches as shown)



- NOTES:**
- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
  - Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
  - Ensure that Red Enable is active at all times during normal operation.
  - Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.
  - Special cabinet wiring is required to utilize FYA COMPACT mode. See Ped Yellow Conflict Monitor Wiring Detail on this sheet.

**NOTES**

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- Enable Simultaneous Gap-Out for all Phases.
- Program phases 2 and 6 for Variable Initial and Gap Reduction.
- Program phases 2 and 6 for Startup In Green.
- Program phases 2 and 6 for Yellow Flash, and overlap 1 as Wag Overlaps.

**SIGNAL HEAD HOOK-UP CHART**

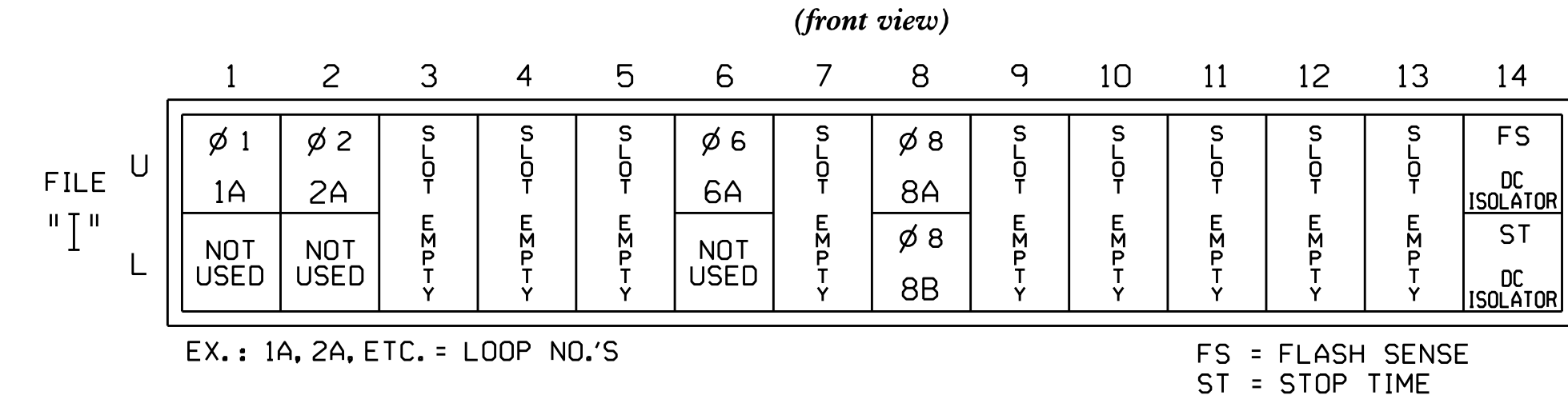
| LOAD SWITCH NO.       | S1  | S2    | S3    | S4    | S5 | S6 | S7    | S8 | S9    | S10   | S11 | S12 |       |    |
|-----------------------|-----|-------|-------|-------|----|----|-------|----|-------|-------|-----|-----|-------|----|
| CMU CHANNEL NO.       | 1   | 2     | 9     | 13    | 3  | 4  | 14    | 5  | 6     | 15    | 7   | 8   | 16    |    |
| PHASE                 | OLA | 2     | 1 GRN | 2 PED | 3  | 4  | 4 PED | 5  | 6     | 6 PED | 7   | 8   | 8 PED |    |
| SIGNAL HEAD NO.       | 11  | 21,22 | 11    | NU    | NU | NU | NU    | NU | 61,62 | NU    | NU  | 22  | 81,82 | NU |
| RED                   | 128 |       |       |       |    |    |       |    | 134   |       |     |     | 107   |    |
| YELLOW                | 129 |       |       |       |    |    |       |    | 135   |       |     |     | 108   |    |
| GREEN                 | 130 |       |       |       |    |    |       |    | 136   |       |     |     | 109   |    |
| RED ARROW             | 125 |       |       |       |    |    |       |    |       |       |     |     |       |    |
| YELLOW ARROW          | 126 |       |       |       |    |    |       |    |       |       |     |     | 108   |    |
| FLASHING YELLOW ARROW | 127 |       |       |       |    |    |       |    |       |       |     |     |       |    |
| GREEN ARROW           |     |       | 114   |       |    |    |       |    |       |       |     |     | 109   |    |
|                       |     |       |       | *     |    |    |       |    |       |       |     |     |       |    |

NU = Not Used  
 \* Denotes install load resistor. See load resistor installation detail this sheet.  
 ★ See pictorial of head wiring in detail this sheet.

**EQUIPMENT INFORMATION**

CONTROLLER.....2070  
 CABINET.....336  
 SOFTWARE.....ECONOLITE OASIS  
 CABINET MOUNT.....POLE  
 OUTPUT FILE POSITIONS...12  
 LOAD SWITCHES USED.....S1,S2,S3,S8,S11  
 PHASES USED.....1,2,6,8  
 OVERLAP "A".....1+2  
 OVERLAP "B".....NOT USED  
 OVERLAP "C".....NOT USED  
 OVERLAP "D".....NOT USED

**INPUT FILE POSITION LAYOUT**

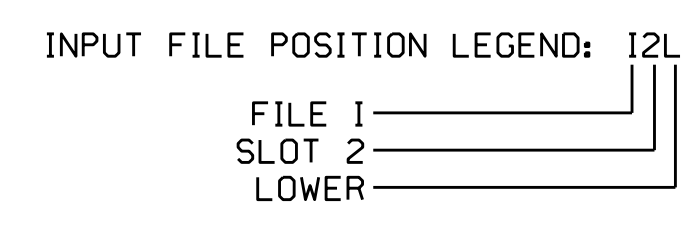


EX.: 1A, 2A, ETC. = LOOP NO.'S  
 FS = FLASH SENSE  
 ST = STOP TIME

**INPUT FILE CONNECTION & PROGRAMMING CHART**

| LOOP NO.        | LOOP TERMINAL | INPUT FILE POS. | PIN NO. | INPUT ASSIGNMENT NO. | DETECTOR NO. | NEMA PHASE | CALL | EXTEND | FULL TIME DELAY | STRETCH TIME | DELAY TIME |
|-----------------|---------------|-----------------|---------|----------------------|--------------|------------|------|--------|-----------------|--------------|------------|
| 1A <sup>1</sup> | TB21-1,2      | I1U             | 56      | 18                   | 1            | 1          | Y    | Y      |                 |              | 15         |
|                 | -             | -               | 59      | 21                   | 15           | 6          | Y    | Y      | Y               |              | 3          |
| 2A              | TB21-3,4      | I2U             | 39      | 1                    | 2            | 2          | Y    | Y      |                 |              |            |
| 6A              | TB21-11,12    | I6U             | 40      | 2                    | 6            | 6          | Y    | Y      |                 |              |            |
| 8A              | TB22-1,2      | I8U             | 42      | 4                    | 8            | 8          | Y    | Y      |                 |              | 3          |
| 8B              | TB24-1,2      | I8L             | 46      | 8                    | 18           | 8          | Y    | Y      |                 |              | 15         |

<sup>1</sup>Add jumper from I1-F to I1-SP, on rear of input file.



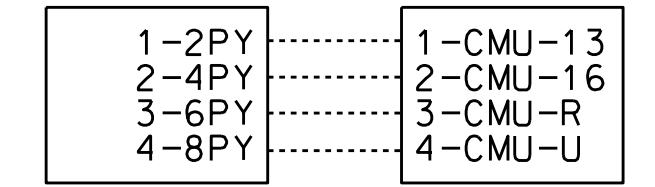
**PED YELLOW CONFLICT MONITOR WIRING DETAIL**

(make cabinet wiring changes as shown below)

In order to use FYA COMPACT mode with the 2018ECL-NC Monitor, the cabinet must be wired such that the (unused) Ped Yellow load switch outputs are wired to the conflict monitor as follows: From 2 PY (field term. 114) to chan. 9 green (monitor pin 13).

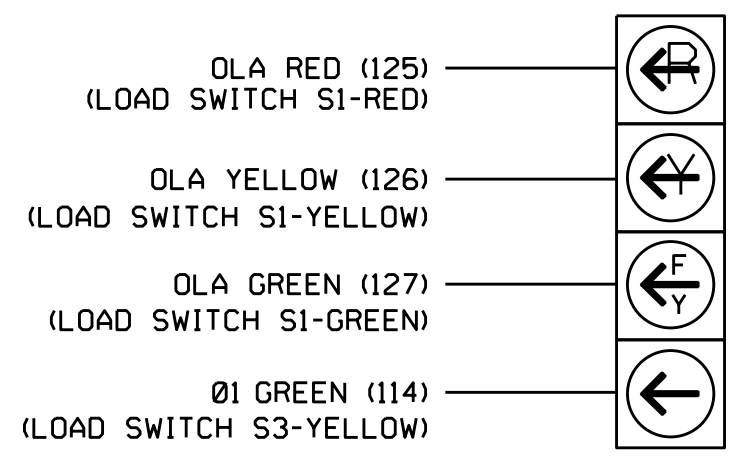
- Follow the instructions below to make the appropriate connections:
- STEP 1: Fold down rear panel of output file.
  - STEP 2: Find unused wiring harness from conflict monitor card edge connector (which should be tied and bundled together).
  - STEP 3: Find the conductors that correspond to the following conflict monitor card edge pins and solder wire to the appropriate terminal on the rear of the output file as shown below:
- CMU-13 ----- 2PY (term. 114)

NOTE: Some cabinet manufacturers use keyed connectors to accomplish this wiring configuration. If connectors are used, fold down the rear panel of the output file and find the set of 3 keyed connectors and connect them as shown below:



**FYA SIGNAL WIRING DETAIL**

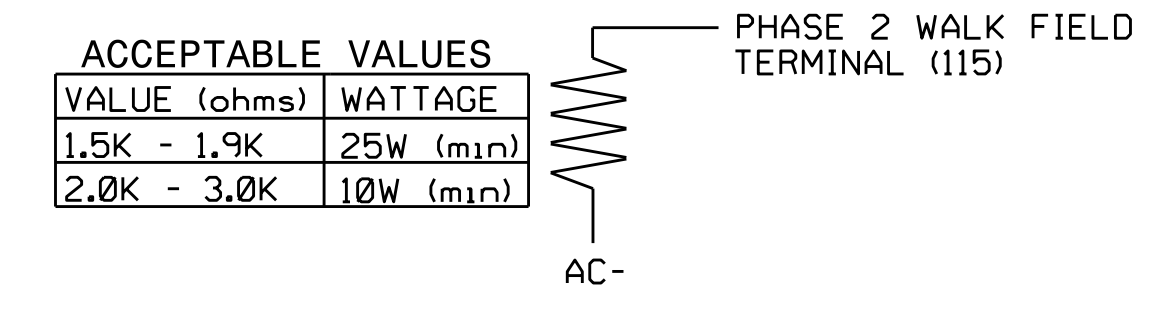
(wire signal head as shown)



NOTE: The sequence display for signal head 11 requires special logic and output remapping. See sheets 2 and 3 for programming instructions.

**LOAD RESISTOR INSTALLATION DETAIL**

(install resistor as shown below)



ACCEPTABLE VALUES

| VALUE (ohms) | WATTAGE   |
|--------------|-----------|
| 1.5K - 1.9K  | 25W (min) |
| 2.0K - 3.0K  | 10W (min) |

Electrical Detail - Sheet 1 of 3

Electrical and Programming Details for:

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

NC 54 at SR 1945 (Neville Road)

Division 7 Orange County Near Carrboro

PLAN DATE: March 2017 REVIEWED BY: DTJ

PREPARED BY: James Peterson REVIEWED BY:

REVISIONS: \_\_\_\_\_ INIT. DATE

Seal of Keith M. Mims, Professional Engineer, No. 036880, State of North Carolina.

DocuSigned by: Keith M. Mims 3/24/2017

SIG. INVENTORY NO. 07-1233

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 07-1233  
 DESIGNED: March 2017  
 SEALED: 3-23-17  
 REVISED: N/A

2/4/18 - 2017 09:40  
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 J.peterson