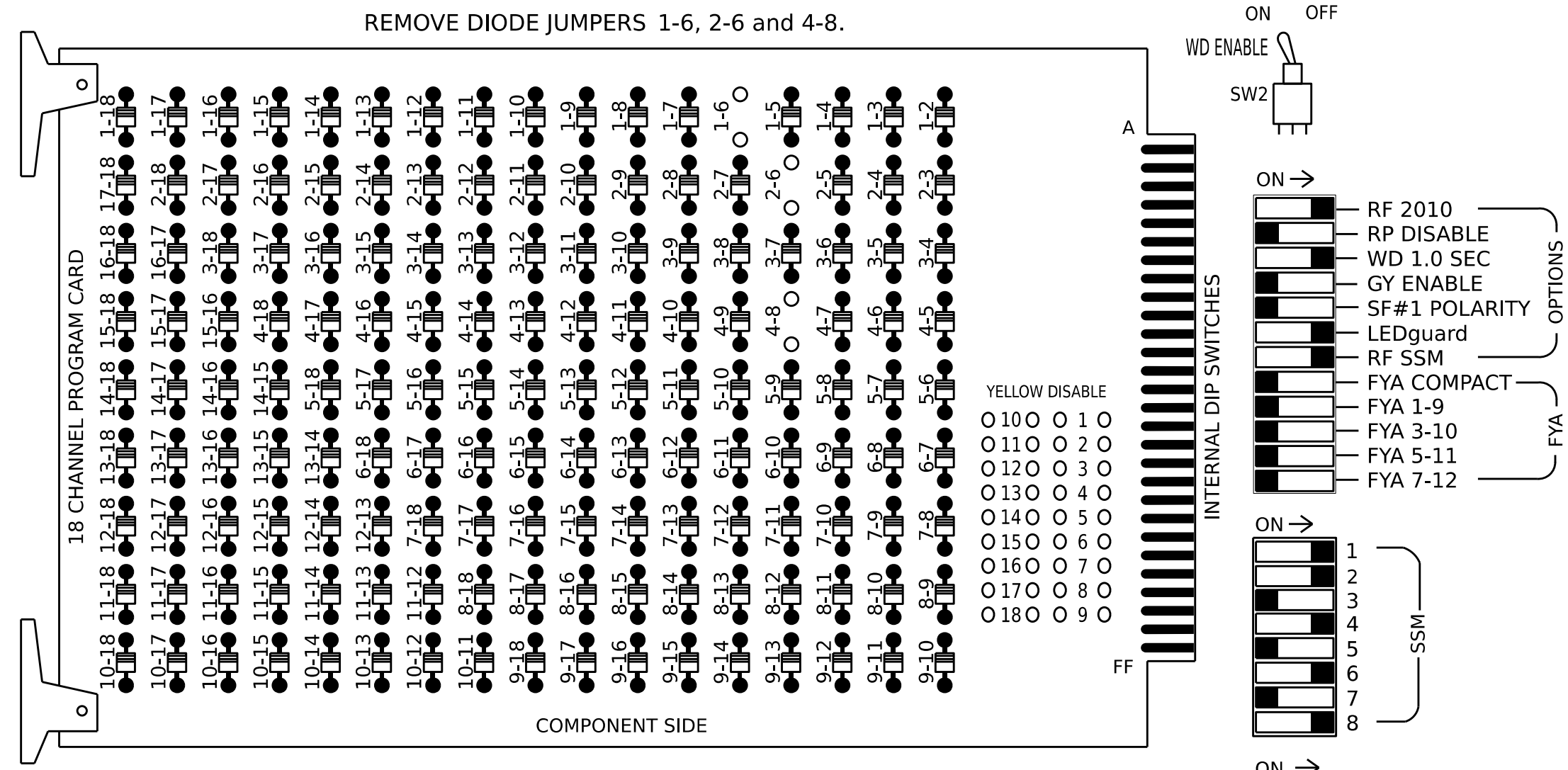


18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

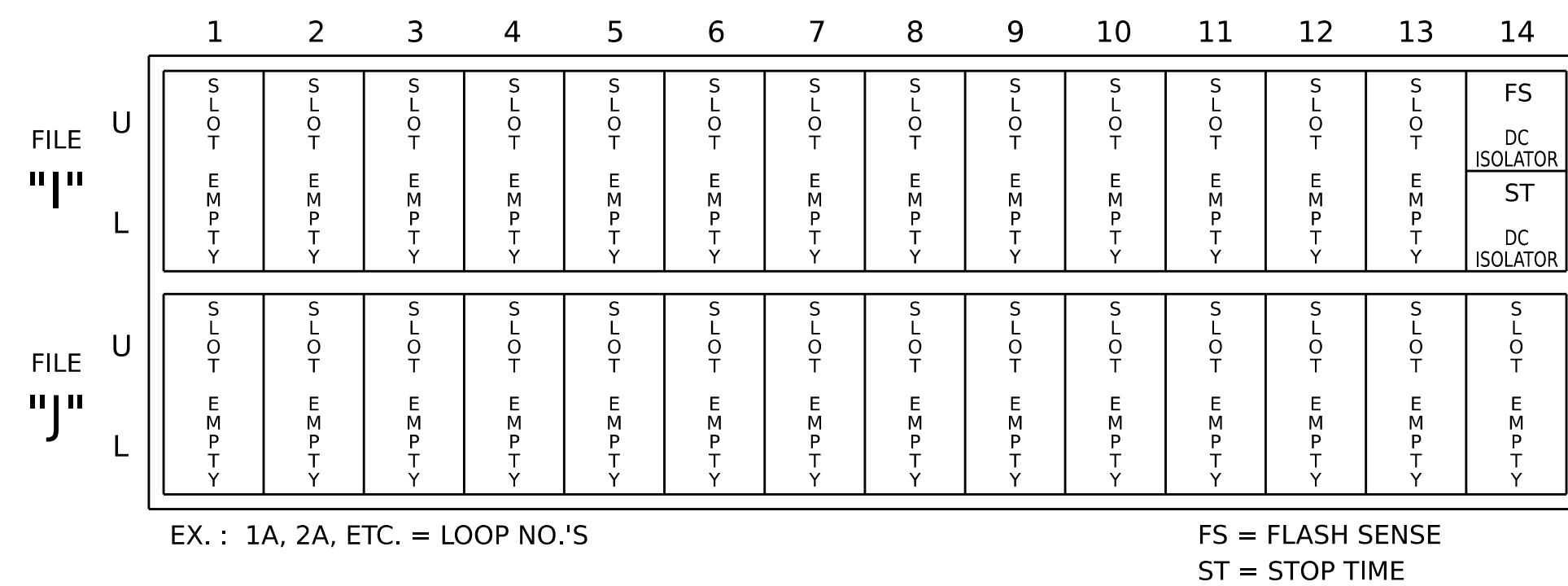
(remove jumpers and set switches as shown)



NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

INPUT FILE POSITION LAYOUT (front view)



SPECIAL DETECTOR NOTE

Install a multi-zone microwave detection system for vehicle detection. Perform installation according to manufacturer's directions and NCDOT engineer-approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. Program controller to start up in phases 2 and 6 Green.
3. Enable simultaneous gap-out feature for all phases.
4. Program phases 4 and 8 for dual entry.

EQUIPMENT INFORMATION

Controller..... 2070
 Cabinet..... 332 w/ Aux
 Software..... SE-PAC2070
 Cabinet Mount..... Base
 Output File Positions..... 18 With Aux. Output File
 Load Switches Used..... S1, S2, S5, S8, S11
 Phases Used..... 1, 2, 4, 6, 8
 Overlaps..... NONE

ALL RED FLASH STARTUP PROGRAMMING DETAIL

(program controller as shown below)

1. From Main Menu select **4-UNIT DATA**
2. From UNIT DATA Submenu select **1-STARTUP & MISC**

```
STARTUP & MISC
STARTUP TIME.: 6 (SEC) STATE: 2 (0-FL
RED REV/10...: 40 (TSEC)           1-RED
AUTO PED CLR.: 0 (0-NO 1-YES)      2-RAF)
STOP T RESET.: 0 (0-NO 1-YES)
SEQUENCE.....: 1 (1-19)
SPECIAL SEQ  : 0 (SEE HELP)
```

STARTUP PROGRAMMING COMPLETE

INIT & N.A. RESP PROGRAMMING DETAIL

(program controller as shown below)

1. From Main Menu select **3-PHASE DATA**
2. From PHASE DATA Submenu select **4-INIT & N.A. RESP+**

```
PHASE.....1...2...3...4...5...6...7...8
INITIAL   1  4  0  1  0  4  0  1
NA RESP   0  1  0  2  0  1  0  2
UPDT GRN  0  0  0  0  0  0  0  0
CODES....0...1...2...3...4...5...6
INIL      NONE INACT RED YEL GRN DRK G/DW
NA RSP    NONE NA1 NA2 1&2 --- --- ---
***
```

INIT & N.A. RESP PROGRAMMING COMPLETE

SIGNAL HEAD HOOK-UP CHART

| LOAD SWITCH NO. | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 | S11 | S12 | AUX S1 | AUX S2 | AUX S3 | AUX S4 | AUX S5 | AUX S6 |
|-----------------------|-----|-------|-------|----|-------|-------|----|-------|-------|-----|-------|-------|--------|--------|--------|--------|--------|--------|
| CMU CHANNEL NO. | 1 | 2 | 13 | 3 | 4 | 14 | 5 | 6 | 15 | 7 | 8 | 16 | 9 | 10 | 17 | 11 | 12 | 18 |
| PHASE | 1 | 2 | 2 PED | 3 | 4 | 4 PED | 5 | 6 | 6 PED | 7 | 8 | 8 PED | OLA | OLB | SPARE | OLC | OLD | SPARE |
| SIGNAL HEAD NO. | 11 | 21,22 | NU | NU | 41,42 | NU | NU | 61,62 | NU | NU | 81,82 | NU | NU | NU | NU | NU | NU | NU |
| RED | | 128 | | | 101 | | | 134 | | | 107 | | | | | | | |
| YELLOW | | 129 | | | 102 | | | 135 | | | 108 | | | | | | | |
| GREEN | | 130 | | | 103 | | | 136 | | | 109 | | | | | | | |
| RED ARROW | 125 | | | | | | | | | | | | | | | | | |
| YELLOW ARROW | 126 | | | | | | | | | | | | | | | | | |
| FLASHING YELLOW ARROW | | | | | | | | | | | | | | | | | | |
| GREEN ARROW | 127 | | | | | | | | | | | | | | | | | |

NU = Not Used

REMOTE FLASH PROGRAMMING DETAIL

(program controller as shown below)

1. From Main Menu select **4-UNIT DATA**
2. From UNIT DATA Submenu select **2-FLASH**
3. From FLASH Submenu select **1-REMOTE FLASH SETTINGS**

```
REMOTE FLASH SETTINGS TEST-A FLASH: 0
LDSW:123456789 0123456789 0123456789 012
FLSH:110010010 0100000000 0000000000 000
ALT:010010000 0000000000 0000000000 000
0-DARK 1-RED 2-YELLOW 3-STEADY YELLOW
```

PRESS 'F' TO RETURN TO FLASH

4. From REMOTE FLASH Submenu select **2-REMOTE FLASH ENTRY/EXIT PHASES**

```
REMOTE FLASH ENTRY/EXIT PHASES
PHASES: 12345678 90123456
ENTRY: 01000100 00000000
EXIT: 01000100 00000000
```

REMOTE FLASH PROGRAMMING COMPLETE

Electrical Detail - (TMP Phase 7D) - Sheet 1 of 1

Prepared in the Offices of:

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 at
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Division 12 Catawba County Hickory

PLAN DATE: March 2026 REVIEWED BY:

PREPARED BY: Tim Langston REVIEWED BY:

REVISIONS

| REVISIONS | INIT. | DATE |
|-----------|-------|------|
| | | |

Documented by: *D. Todd Joyce* 04/10/2026

SEAL
 NORTH CAROLINA
 PROFESSIONAL ENGINEER
 SEAL 031001
 D. TODD JOYCE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SIG. INVENTORY NO. 12-1218T1

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 12-1218T1
 DESIGNED: January 2026
 SEALED: 04/09/2026
 REVISED: N/A

10-ARR-2016-11-27 pwa/nco05-gw-bentley.com/nco05-pw-01/Documents/NCDOT/Title/NCDOT TSMO/Signal Design Section/Division_12/12-1218/Signal Management/121218T_sm_ele_031001.dgn