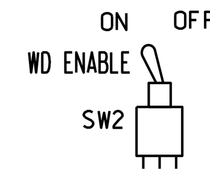
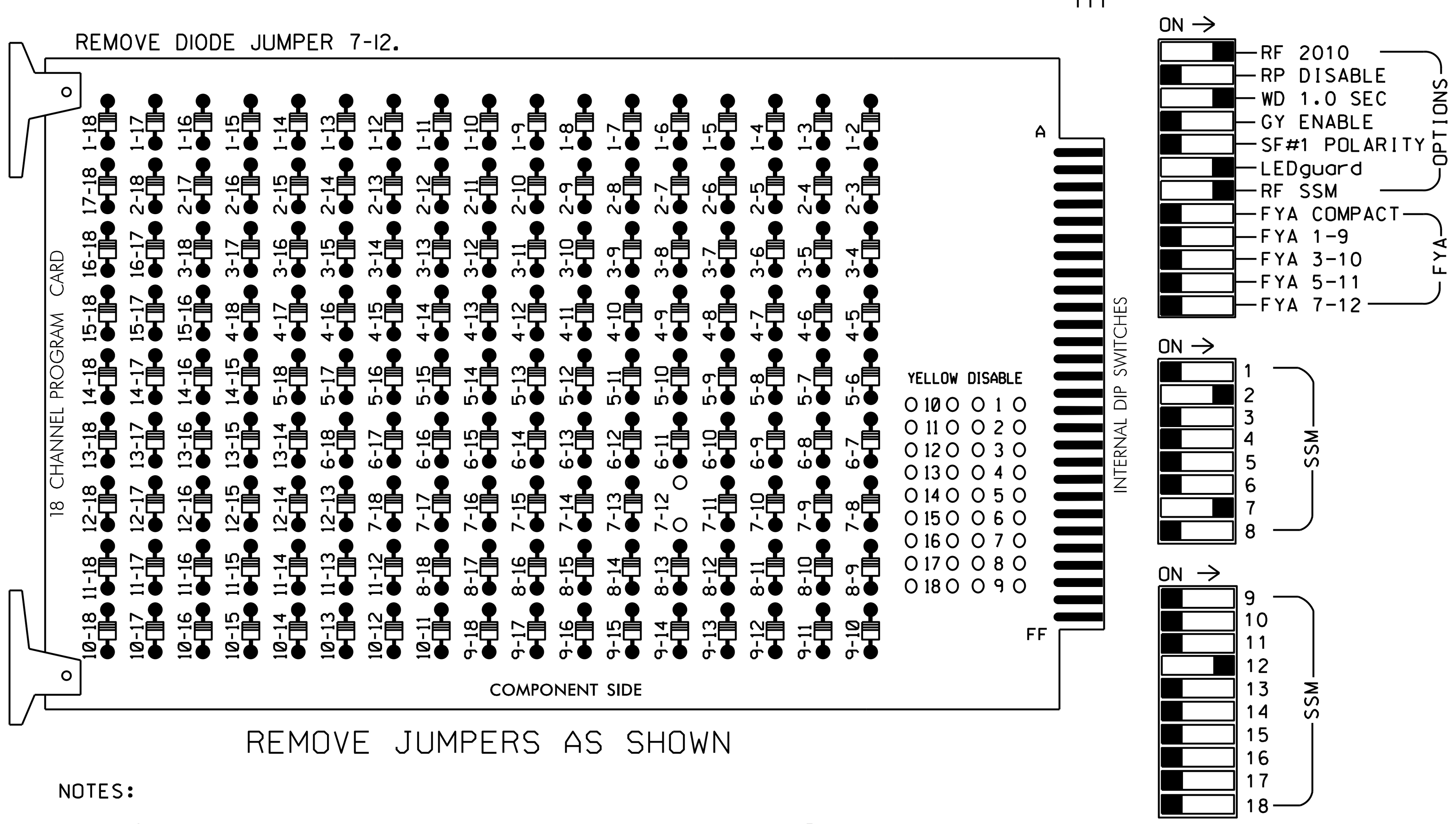
18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)





REMOVE JUMPERS AS SHOWN

■ = DENOTES POSITION OF SWITCH

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 Red Enable is active at all times during normal operation.
4. Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	SLOT EMPTY	Ø 2 2A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L		Ø 2 2B												ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø 7 7A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L						NOT USED								

EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INIT & N.A. RESP PROGRAMMING DETAIL

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

Note Phases 1, 4, 5, 6 and 8 NOT used!

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

INIT & N.A. RESP PROGRAMMING COMPLETE

NOTES

1. 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.
2. Program controller to start up in phase 2 Green/ Don't Walk.
3. Enable simultaneous gap-out feature for all phases.
4. Program phase 2 for volume density operation.
5. The cabinet and controller are part of the Raleigh Signal System.

EQUIPMENT INFORMATION

CONTROLLER..............2070LX
CABINET.................332 W/ AUX
SOFTWARE................SE-PAC2070 ver 5.5 or later
CABINET MOUNT...........BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED......S2,S10,AUX S5
PHASES USED.............2,*3,7
OVERLAP "A".............NOT USED
OVERLAP "B".............NOT USED
OVERLAP "C".............NOT USED
OVERLAP "D".............**

** See overlap programming detail on sheet 2.
* Phase used for timing purposes only

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	DETECTOR NO.	NEMA PHASE	DELAY TIME	EXTEND (STRETCH) TIME
2A	TB2-5,6	I2U	39	3	2		
2B	TB2-7,8	I2L	43	4	2		
7A	TB5-9,10	J6U	42	31	7		

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

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]

```
EPAC 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)
A-UP B-DN C-LT D-RT E-ENTER F-PRIOR MENU
```

STARTUP PROGRAMMING COMPLETE

PRESS 'F' TO RETURN TO UNIT DATA

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 05-1783
DESIGNED: February 2025
SEALED: 03/27/2025
REVISED: N/A

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.	NU	21,22, 23	NU	NC	NU	NU	NU	NU	NU	71	NU	NU	NU	NU	NU	NU	72	NU
RED		128																
YELLOW		129																
GREEN																		
RED ARROW										122							A101	
YELLOW ARROW										123							A102	
GREEN ARROW		130								124							A103	

NU = Not Used
NC = Not Connected

REMOTE FLASH PROGRAMMING DETAIL

(program controller as shown below)

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

```
FLASH SETTINGS          TEST-A AS FLASH: 0

 LDSW: 123456789 0123456789 0123456789 012
 FLSH: 010000000 1000000100 0000000000 000
  ALT: 000000000 1000000100 0000000000 000

0-DARK   1-RED   2-YELLOW  3-STEADY YELLOW
A-UP  B-DN  C-LT  D-RT         F-PRIOR MENU
```

PRESS 'F' TO RETURN TO FLASH

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

```
FLASH ENTRY/EXIT PHASES

     PHASES: 12345678 90123456
      ENTRY: 01000000 00000000
       EXIT: 01000000 00000000

0-DARK   1-RED   2-YELLOW  3-STEADY YELLOW
A-UP  B-DN  C-LT  D-RT         F-PRIOR MENU
```

REMOTE FLASH PROGRAMMING COMPLETE

Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared for the Offices of:
ITS & Signals Management Section, Transportation Mobility and Safety Division, State of North Carolina Department of Transportation
750 N.Greenfield Pkwy,Garner,NC 27529

US 401 NB (Fayetteville Road)
at U-Turn South of
SR 1006 (Old Stage Road)

Division 5 | Wake County | Raleigh

PLAN DATE: March 2025	REVIEWED BY:
PREPARED BY: S.Kirkpatrick	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 036833 ENGINEER RYAN W. HOUGH
Signed by: Ryan W. Hough
430320FAA2654C3...
SIGNATURE | DATE 03/28/2025

SIG. INVENTORY NO. 05-1783