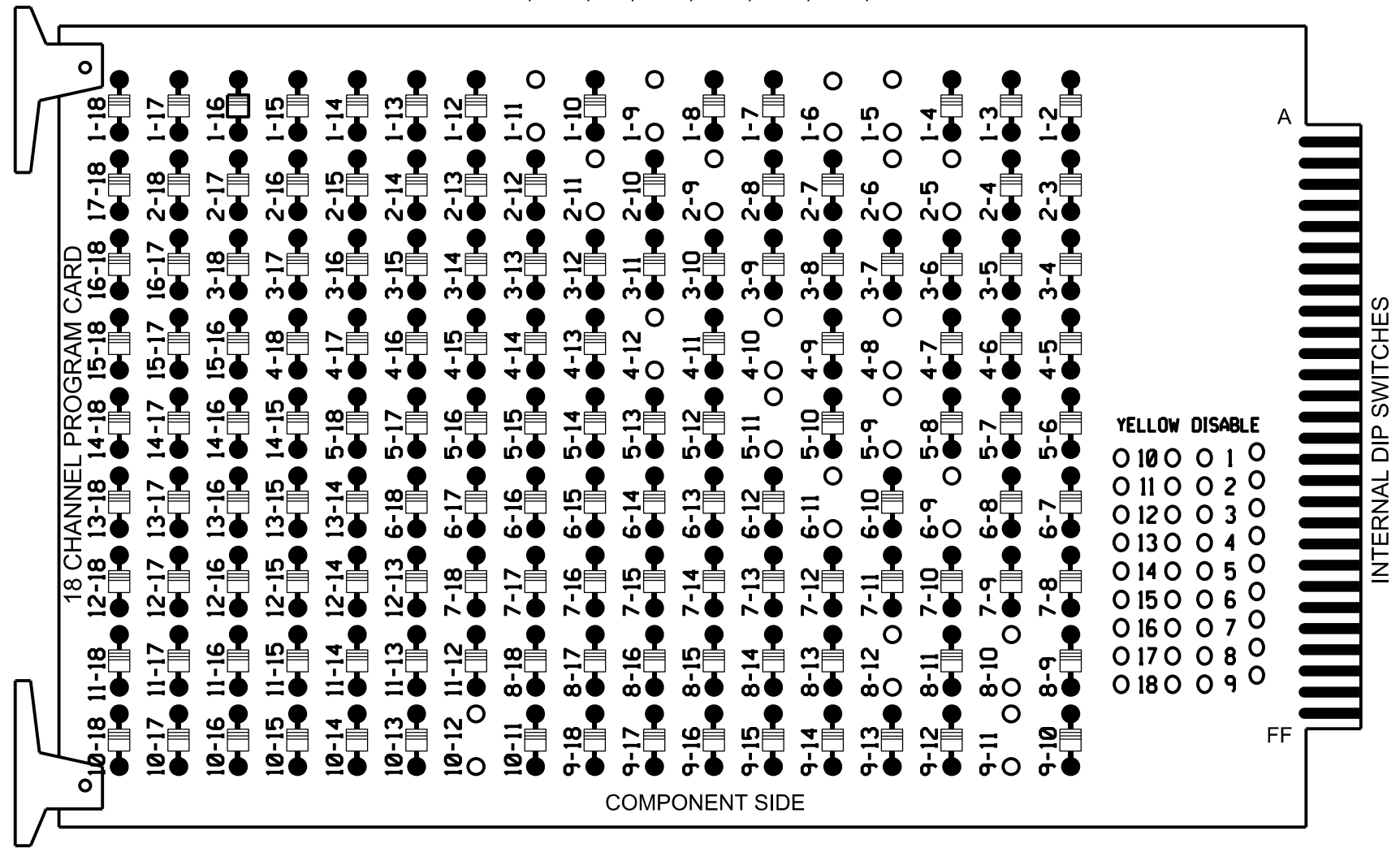


18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

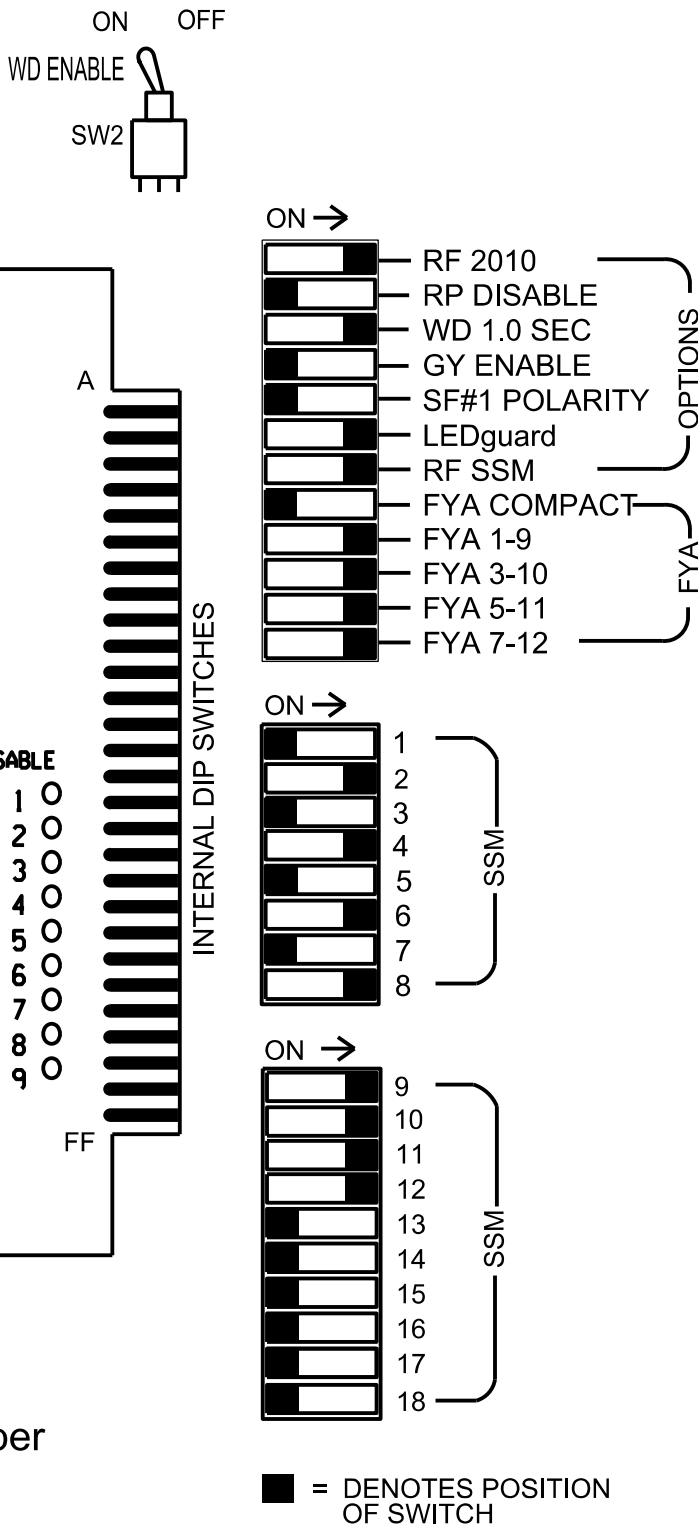
REMOVE DIODE JUMPERS 1-5,1-6,1-9,1-11,2-5,2-6,2-9,2-11,4-8,4-10,4-12,
5-9,5-11,6-9,6-11,8-10,8-12,9-11, AND 10-12



REMOVE JUMPERS 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 the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.



NOTES

- 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 plan.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
- The cabinet and controller are part of the US 264A/US 13 Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S1,S2,S5,S7,S8,S11,
AUX S1, AUX S2, AUX S4,
AUX S5
Phases Used.....1,2,4,5,6,8
Overlap "1".....*
Overlap "2".....*
Overlap "3".....*
Overlap "4".....*

*See overlap programming detail on sheet 2

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	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11	21,22	NU	NU	42,43	NU	51	61,62	NU	NU	82,83	NU	11	81	NU	51	41	NU
RED		128			101			134			107							
YELLOW	*	129			102		*	135			108							
GREEN		130			103			136			109							
RED ARROW													A121	A124		A114	A101	
YELLOW ARROW													A122	A125		A115	A102	
FLASHING YELLOW ARROW													A123	A126		A116	A103	
GREEN ARROW	127						133											

NU = Not Used

- * Denotes install load resistor. See load resistor installation detail this sheet.
* See pictorial of head wiring in detail this sheet.

INPUT FILE POSITION LAYOUT

(front view)

FILE	U	1	2	3	4	5	6	7	8	9	10	11	12	13	14
"I"	Ø1	S	S	S	S	S	S	S	S	S	S	S	S	S	FS
	1A	T	T	T	T	T	T	T	T	T	T	T	T	T	DC ISOLATOR
	USED	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	ST
"J"	Ø5	S	S	S	S	S	S	S	S	S	S	S	S	S	S
	5A	T	T	T	T	T	T	T	T	T	T	T	T	T	DC ISOLATOR
	USED	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	ST

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

FS = FLASH SENSE
ST = STOP TIME

Note: Remove jumpers from I1-W to J4-W and J1-W to I4-W if present.

INPUT FILE CONNECTION & PROGRAMMING CHART

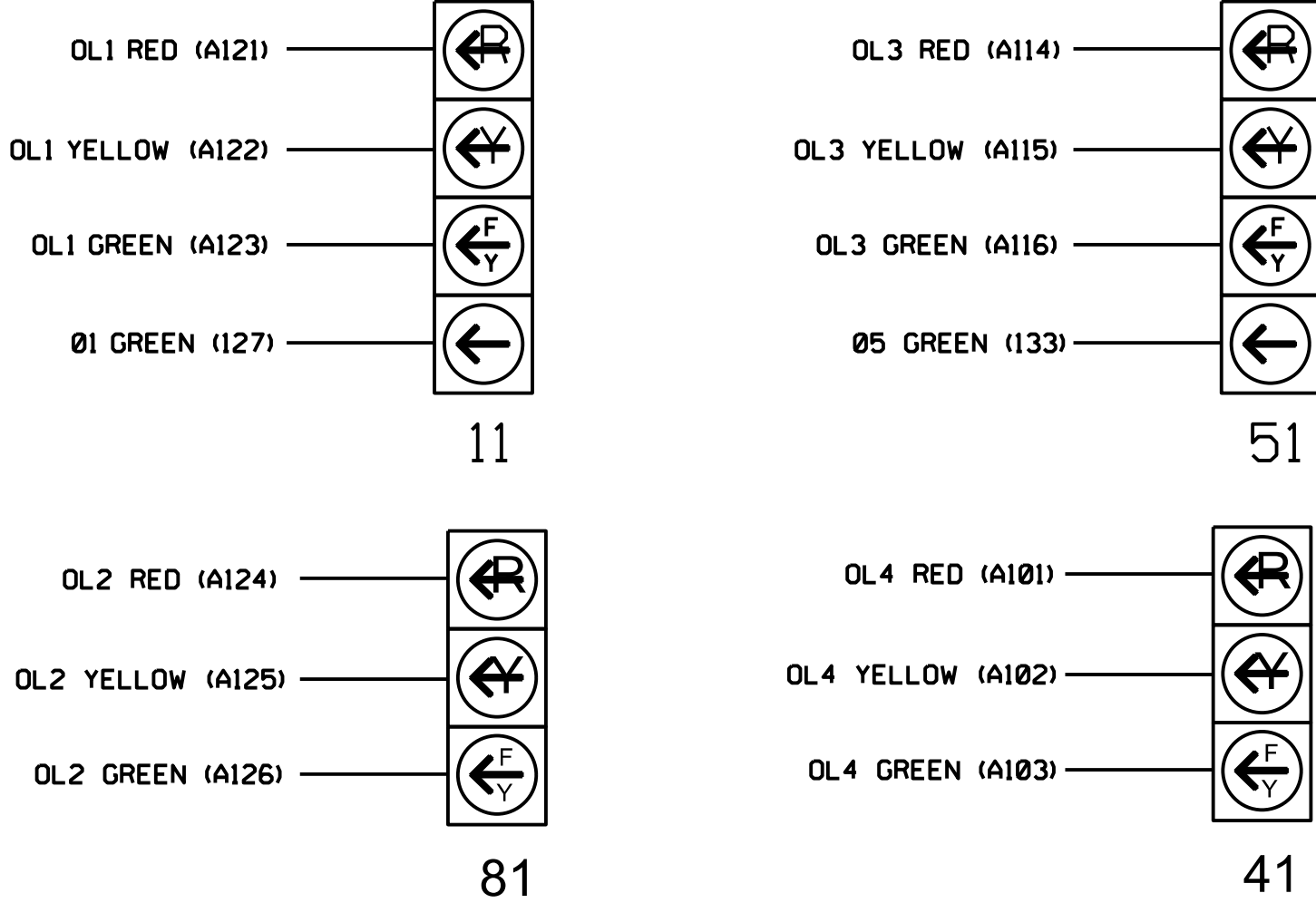
LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15	---	X	-	X	-
				17	29	6	---	---	X	-	X	-
5A	TB3-1,2	J1U	55	15	15	5	15	---	X	-	X	-
				31	31	2	---	---	X	-	X	-

* See detector programming detail for alternate phasing on sheet 2.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)

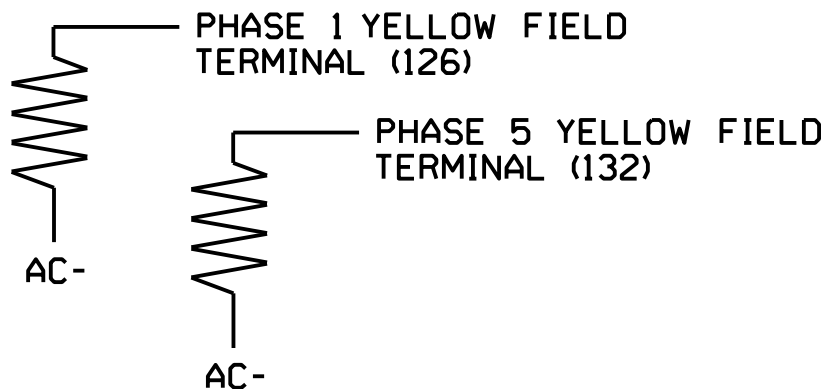


THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 02-0946
DESIGNED: July 2025
SEALED: 07/15/2025
REVISED: N/A

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)

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



SPECIAL DETECTOR NOTE

Install a multizone 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.

For Detection Zone 1A and 5A, the equipment placement is typical for a NCDOT installation.

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR: Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION Signal Management Section 750 N. Greenfield Pkwy, Corner, NC 27529	13/US 264A (Dickinson Ave.) at SR 1127 (Frog Level Road)		SEAL NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNE
	PLAN DATE: July 2025	REVIEWED BY: S.G. Hayne	DocuSigned by: Steven G. Hayne 7/15/2025
	PREPARED BY: E.N. RODRIGUEZ	REVIEWED BY:	
	REVISIONS	INIT.	
SIGNATURE		DATE	SIG. INVENTORY NO. 02-0946