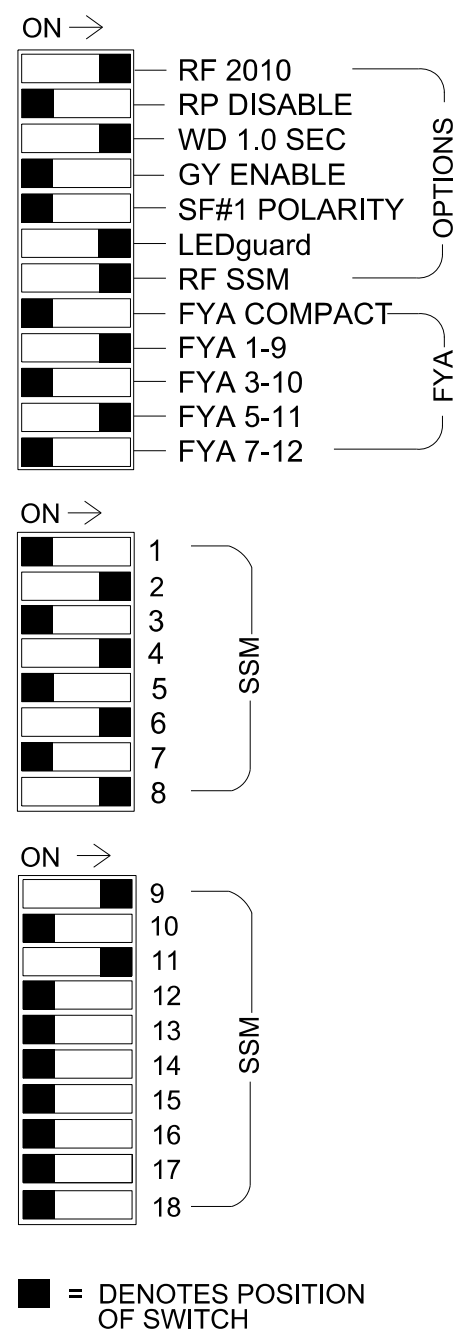
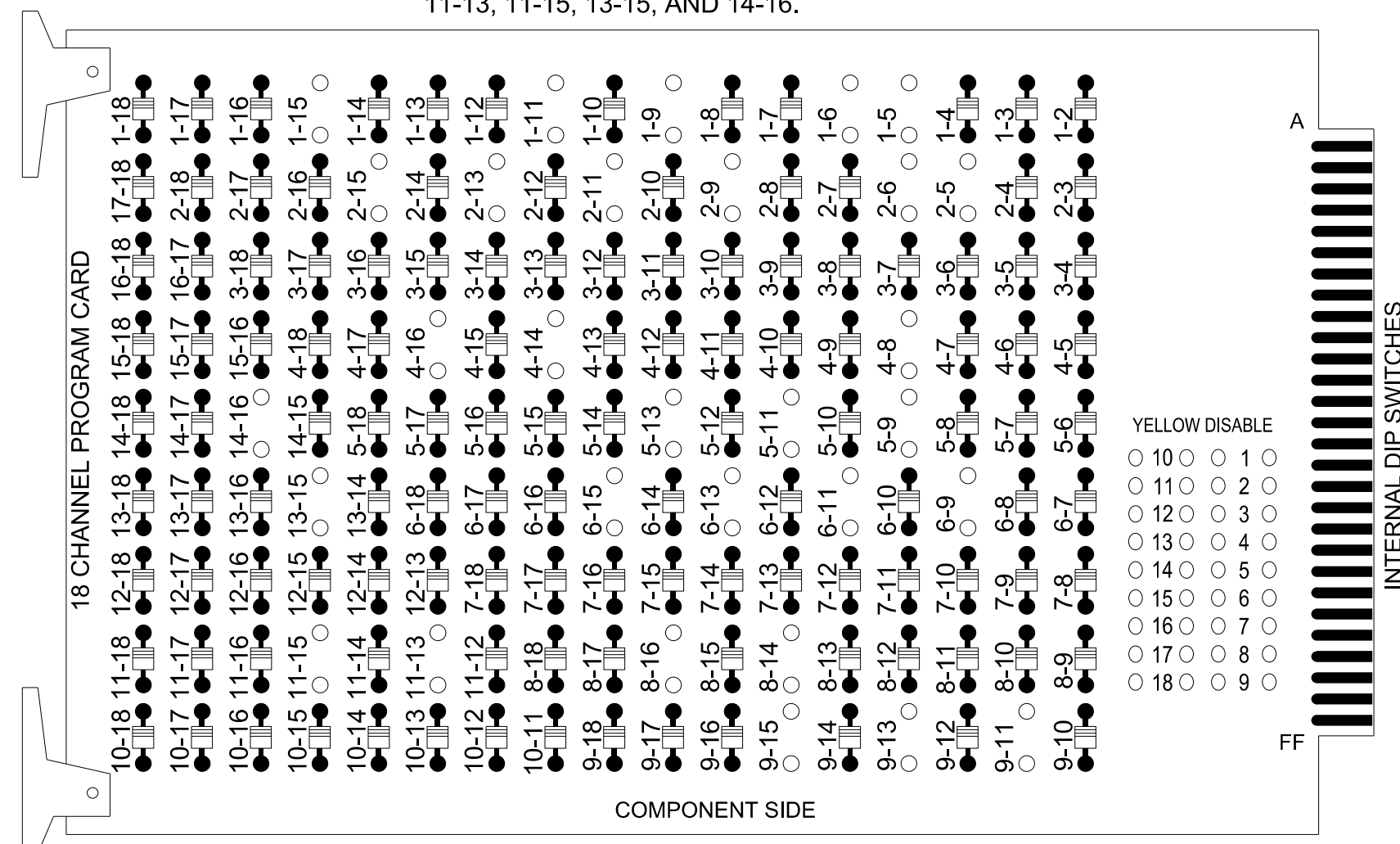


18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-15, 2-5, 2-6, 2-9, 2-11, 2-13, 2-15, 4-8, 4-14, 4-16, 5-9, 5-11, 5-13, 6-9, 6-11, 6-13, 6-15, 8-14, 8-16, 9-11, 9-13, 9-15, 11-13, 11-15, 13-15, AND 14-16.



- 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.
 - Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

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 plan.
- Program phases 4 and 8 for Dual Entry.
- Enable Simultaneous Start for phases 4 and 8.
- 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 NC 8 (Winston Road) Closed Loop System (Signal System D09-19 Lexington).

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, S3, S5, S6, S7, S8, S9, S11, S12, AUX S1, AUX S4
 Phases Used.....1, 2, 2PED, 4, 4PED, 5, 6, 6PED, 8, 8PED
 Overlap "1".....*
 Overlap "2".....Not Used
 Overlap "3".....*
 Overlap "4".....Not Used

*See overlap programming detail on sheet 2

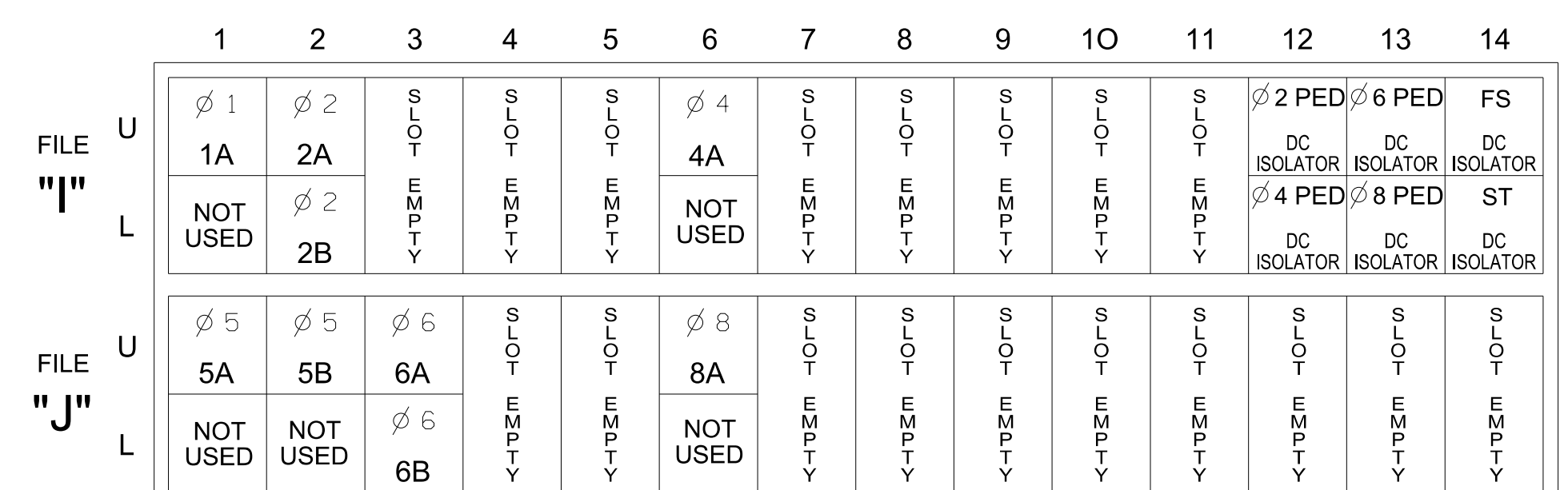
SIGNAL HEAD HOOK-UP CHART

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	P21, P22	NU	41,42,43	P41, P42	51*	61,62	P61, P62	NU	81,82,83	P81, P82	11*	NU	NU	51*	NU	NU
RED	128			101				134			107							
YELLOW	*	129		102		*	135			108								
GREEN		130		103			136			109								
RED ARROW													A121				A114	
YELLOW ARROW													A122				A115	
FLASHING YELLOW ARROW													A123				A116	
GREEN ARROW	127						133											
Hand				113		104			119				110					
Person				115		106			121				112					

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)



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

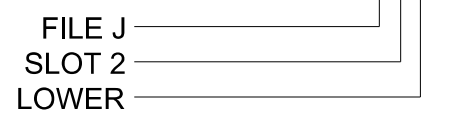
INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT 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	15.0	---	X	-	X	-
2A	TB2-5,6	I2U	39	1	29 ★	6	3.0	---	X	-	X	X
2B	TB2-7,8	I2L	43	5	3	2	---	---	X	X	X	-
4A	TB4-9,10	I6U	41	3	8	4	5.0	---	X	-	X	-
5A	TB3-1,2	J1U	55	17	15 ★	5	15.0	---	X	-	X	X
5B	TB3-5,6	J2U	40	2	16	5	---	---	X	-	X	-
6A	TB3-9,10	J3U	64	30	18	6	---	---	X	X	X	-
6B	TB3-11,12	J3L	77	43	19	6	---	---	X	X	X	-
8A	TB5-9,10	J6U	42	4	22	8	5.0	---	X	-	X	-
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P41,P42	TB8-5,6	I12L	69	35	4	PED 4						
P61,P62	TB8-7,9	I13U	68	34	6	PED 6						
P81,P82	TB8-8,9	I13L	70	36	8	PED 8						

NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.

★ For the detectors to work as shown on the signal design plan, see the Vehicle Detector Programming Detail for Alternate Phasing Loops 1A & 5A on sheet 2.

INPUT FILE POSITION LEGEND: J2L



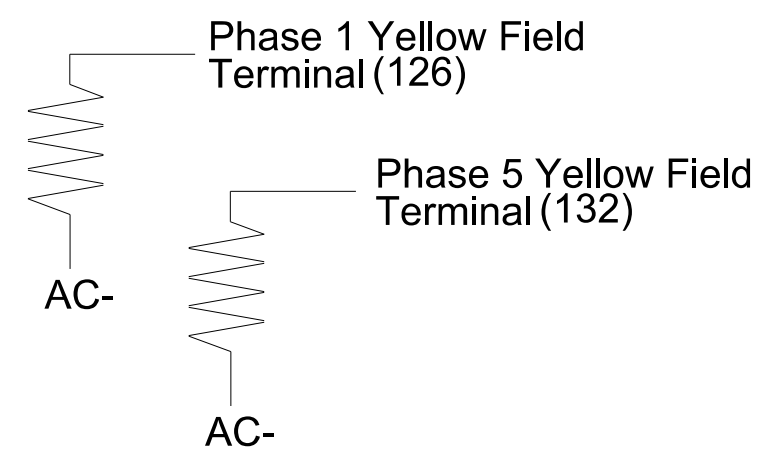
COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)

Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 09-0401
 DESIGNED: May 2024
 SEALED: 05-09-2024
 REVISED: N/A

Electrical Detail - Sheet 1 of 2

Prepared for the Offices of:
 Transportation Mobility and Safety Division
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 750 N. Greenfield Pkwy, Garner, NC 27529

NC 8 (Winston Road) at 11th Street

Division 9, Davidson County, Lexington

PLAN DATE: May 2024 REVIEWED BY: J.T. Rowe, Jr.
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SIG. INVENTORY NO. 09-0401