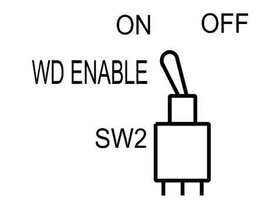
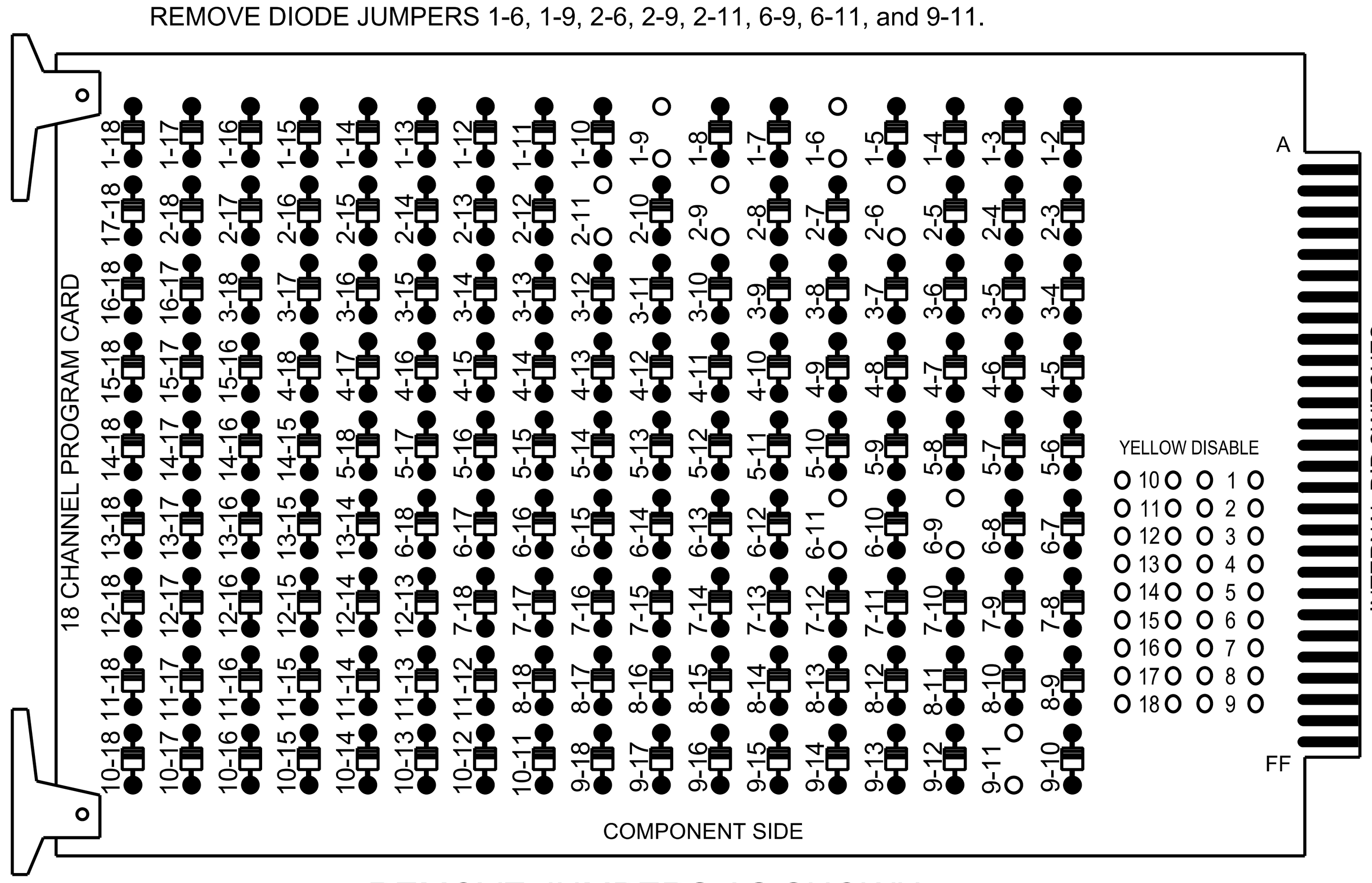
PROJECT REFERENCE NO.	SHEET NO.
U-5813	Sig. 13.1

18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

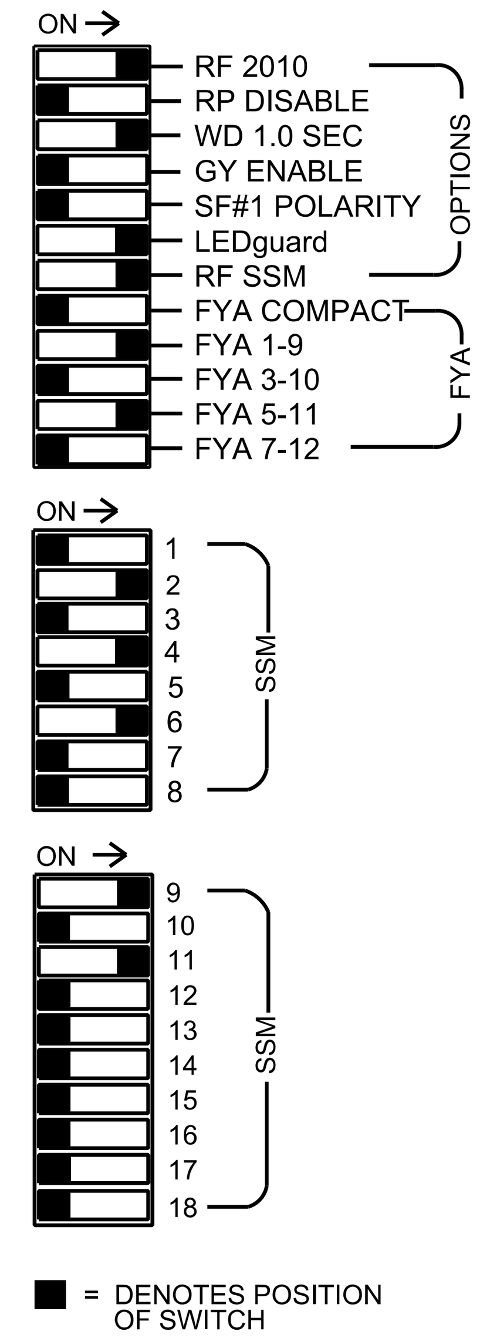
(remove jumpers and set switches as shown)



REMOVE DIODE JUMPERS 1-6, 1-9, 2-6, 2-9, 2-11, 6-9, 6-11, and 9-11.



REMOVE JUMPERS 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.

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 No Walk and 6 Green No Walk.
3. If this signal will be managed by an ATMS software, enable controller and detector logging for all enabled detectors used at this location.

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,S8,AUX S1,AUX S4
Phases Used..1,2,4,6
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	NU	NU	41,42	43	NU	NU	61	62	NU	NU	NU	NU	11 ★	NU	NU	23 ★	NU	NU
RED		128	128			101	101			134	134								A114		
YELLOW	*	129	129			102				135	135										
GREEN			130			103				136											
RED ARROW																A121					
YELLOW ARROW							102									A122			A115		
FLASHING YELLOW ARROW																A123			A116		
GREEN ARROW	127	130					103				136										
(Don't Walk symbol)																					
(Walk symbol)																					

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)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	SLOT EMPTY	SLOT EMPTY	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														ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L														

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		X		X	
				-	29 ★	6			X		X	

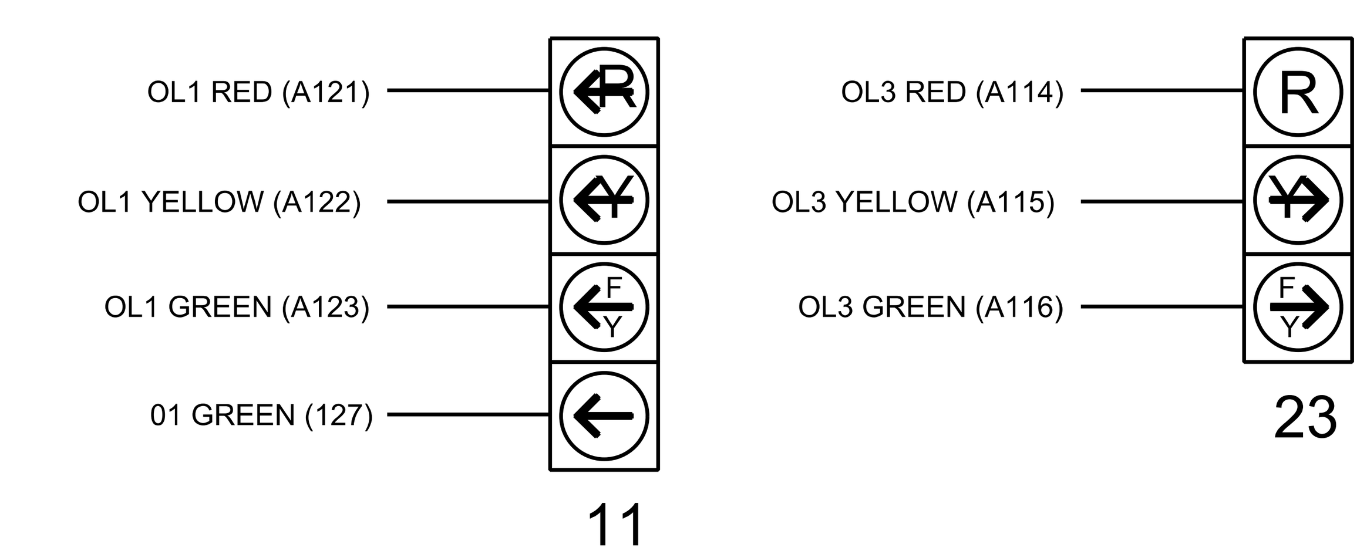
★ For the detectors to work as shown on the signal design plan, see the Detector Programming Detail for Alternate Phasing on Sheet 2.

INPUT FILE POSITION LEGEND: J2L

FILE J
SLOT 2
LOWER

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



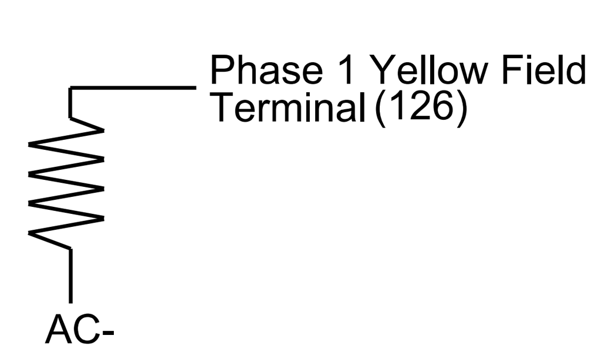
SPECIAL DETECTOR NOTE

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.

LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown)

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



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 08-0502T1
DESIGNED: AUGUST 2021
SEALED: 05/21/2024
REVISED:

New Installation
Temporary Design 1
Electrical Detail - Sheet 1 of 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared for the Offices of:

Transportation Mobility and Safety Division — ITS & Signals Management Section — State of North Carolina Department of Transportation

750 N. Greenfield Pkwy, Garner, NC 27529

NC 49 (Albemarle Rd)
at
I-73-US 220 SB Ramps/
I-74 EB Ramps

Division 8 | Randolph County | Asheboro

PLAN DATE:	August 2021	REVIEWED BY:	A.D. Klinksiek
PREPARED BY:	N.K. Vlanich	REVIEWED BY:	N.R. Simmons

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 031464 ENGINEER NATASHA R. SIMMONS

DocuSigned by:
Natasha R Simmons — 5/21/2024
SIGNATURE — DATE
SIG. INVENTORY NO. 08-0502T1