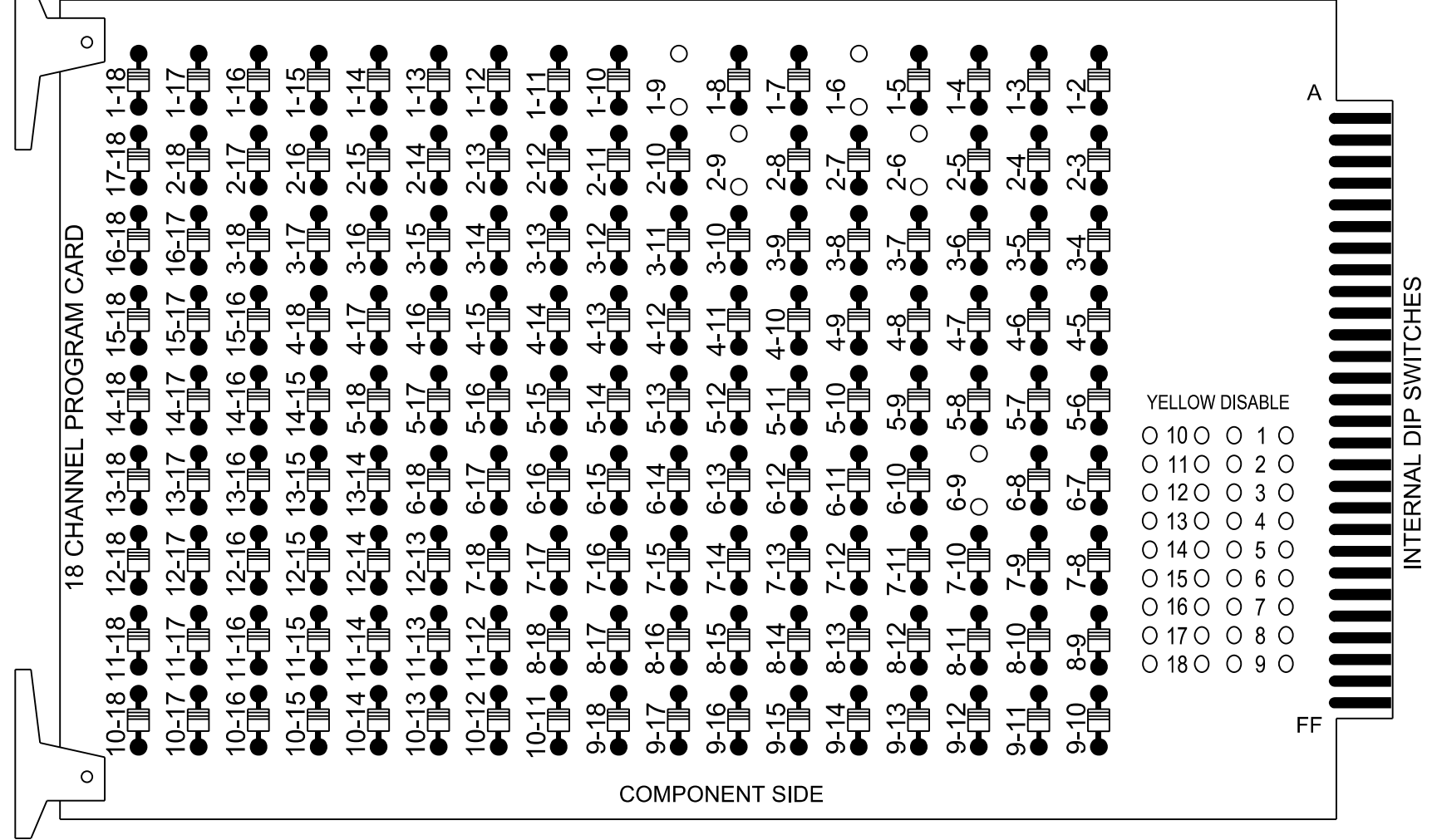


18 CHANNEL CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

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



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 unused 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 phase 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.
- This cabinet and controller are part of the D11-03_Boone 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, S8, S11, AUX S1
Phases Used.....1, 2, 6, 8
Overlap "1".....*
Overlap "2".....NOT USED
Overlap "3".....NOT USED
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	NU	NU	NU	61,62	NU	NU	81,82,83	NU	11★	NU	NU	NU	NU	NU
RED		128						134			107							
YELLOW	★	129						135			108							
GREEN		130						136			109							
RED ARROW													A121					
YELLOW ARROW													A122					
FLASHING YELLOW ARROW													A123					
GREEN ARROW	127																	
Hand icon																		
Walking person icon																		

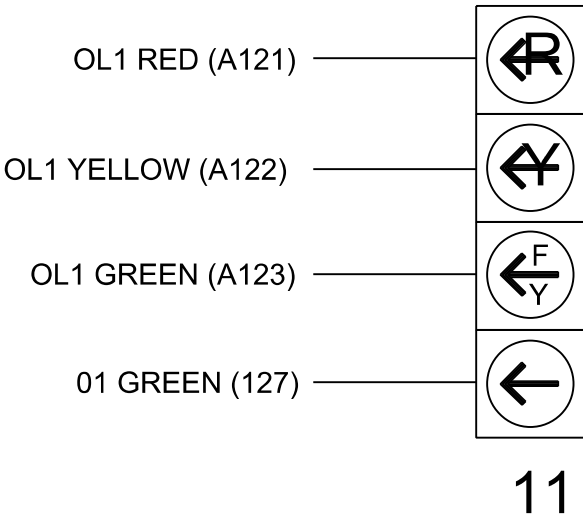
NU = Not Used

★ Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



INPUT FILE POSITION LAYOUT

(front view)

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

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

FS = FLASH SENSE
ST = STOP TIME

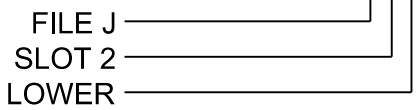
For loop 1A, detector card placement is typical for a NCDOT Installation.
Detectors associated with these slots are compatible with the Detector Programming Detail located on Sheet 2 of this electrical detail.

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	
				-	★ 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.

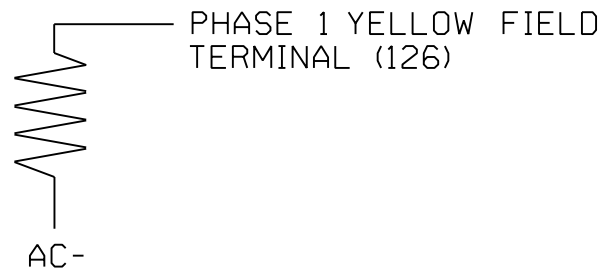
INPUT FILE POSITION LEGEND: J2L



LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown below)

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



SPECIAL DETECTOR NOTE

Install a multi-zone microwave system for vehicle detection zones 1A, 2A, 6A, 8A, 8B, and 8C. Perform installation according to manufacturer's directions and NCDOT engineer -approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.



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ELECTRICAL AND PROGRAMMING
DETAILS FOR:



US 421
at
SR 1514 (Bamboo Road)

Division 11 Watauga County near Boone

PLAN DATE: April 2026 REVIEWED BY: DT Sears

PREPARED BY: WP Erickson-Jones REVIEWED BY: C Silver

REVISIONS INIT. DATE

SIGNATURE DATE

SIG. INVENTORY NO. 11-1055T1

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 11-1055T1
DESIGNED: April 2026
SEALED: 04/23/2026
REVISED:

Signal Upgrade - Temporary Signal 1 - TMP Phases II-V
Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

SEAL

