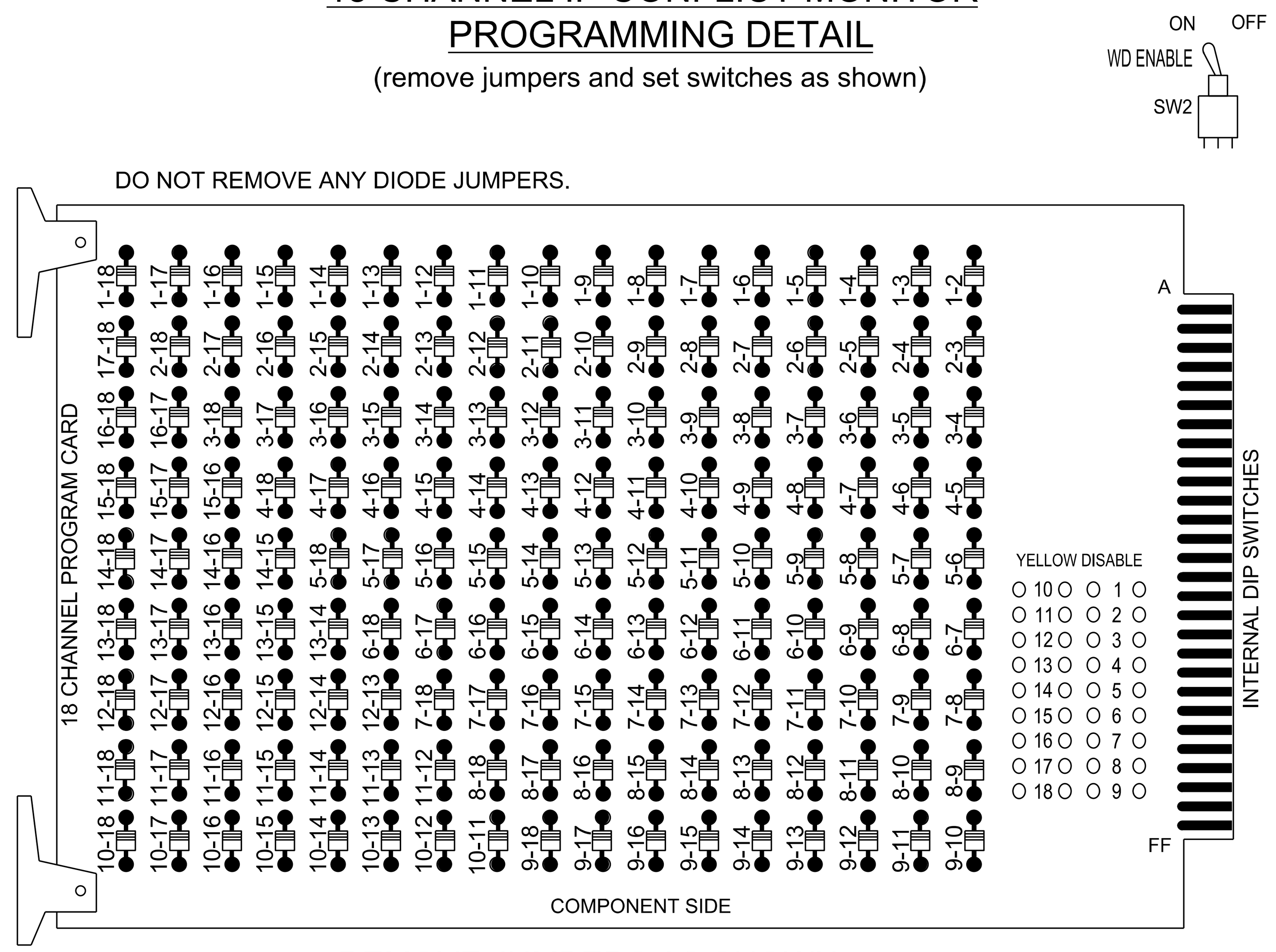
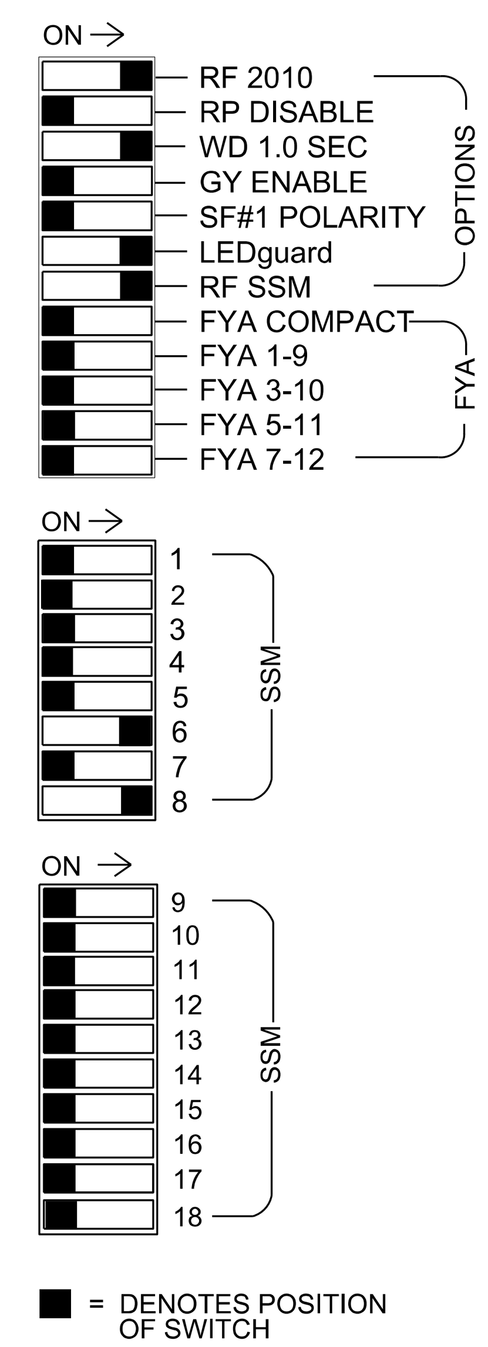
PROJECT REFERENCE NO.	SHEET NO.
R-5857	Sig.13.1

18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



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 vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
2. Program controller to start up in phase 6 Green No Walk.
3. Program phases 6 for Advanced Warning.
4. Program phases 6 for 3.0 seconds Pre Clearance.
5. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

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	ADVANCE BEACON	5	6	6 PED	7	8	8 PED	ADVANCE BEACON	OL1	OL2	OL5	OL3	OL4	OL6
SIGNAL HEAD NO.	NU	NU	NU	NU	NU	NU	65	NU	61,62	NU	NU	81,82	NU	66	NU	NU	NU	NU	NU	NU
RED									134			107								
YELLOW									135											
GREEN									136											
RED ARROW																				
YELLOW ARROW												108								
GREEN ARROW												109								
(Don't Walk)																				
PED YELLOW							** 105							** 111						
(Walk)						*							*							

NU = Not Used

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

** Outputs have been reassigned for Advanced Beacons. See Sheet 2 for reassignment programming and wiring details.

INPUT FILE POSITION LAYOUT

(front view)

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

MULTIZONE DETECTION

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

FS = FLASH SENSE
ST = STOP TIME

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.

EQUIPMENT INFORMATION

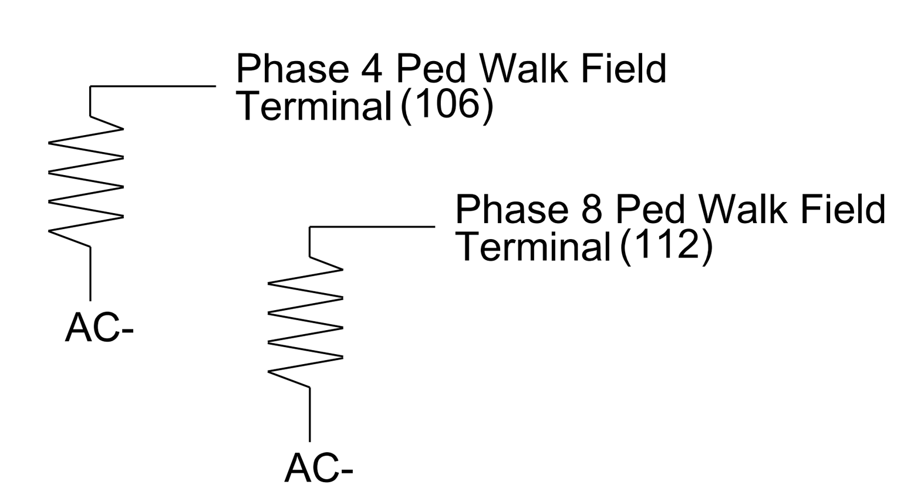
Controller..........2070LX
Cabinet..........332 w/ Aux
Software..........Q-Free MAXTIME
Cabinet Mount..........Base
Output File Positions..........18 With Aux. Output File
Load Switches Used..........S6**, S8, S11, S12**
Phases Used..........6, 8
Overlap "1"..........NOT USED
Overlap "2"..........NOT USED
Overlap "3"..........NOT USED
Overlap "4"..........NOT USED

**Used for advance beacons only

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)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 03-1249T1
DESIGNED: March 2025
SEALED: 3-31-2025
REVISED: N/A

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Electrical Detail - Sheet 1 of 2

Electrical and Programming Details For:

US 17 (Ocean Highway W) at Frontage Road NW

Division 3 | Brunswick County | Shallotte

PLAN DATE: March 2025 | REVIEWED BY: GG Murr, Jr.
PREPARED BY: JT Rowe | REVIEWED BY:

REVISIONS | INIT. | DATE

Prepared in the Offices of: Transportation Mobility and Safety Division, ITS & Signals Management Section
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SEAL 008453
JOHN T. ROWE JR.

Signed by: John T. Rowe, Jr. 4-1-2025
DATE

SIG. INVENTORY NO. 03-1249T1

4/1/2025