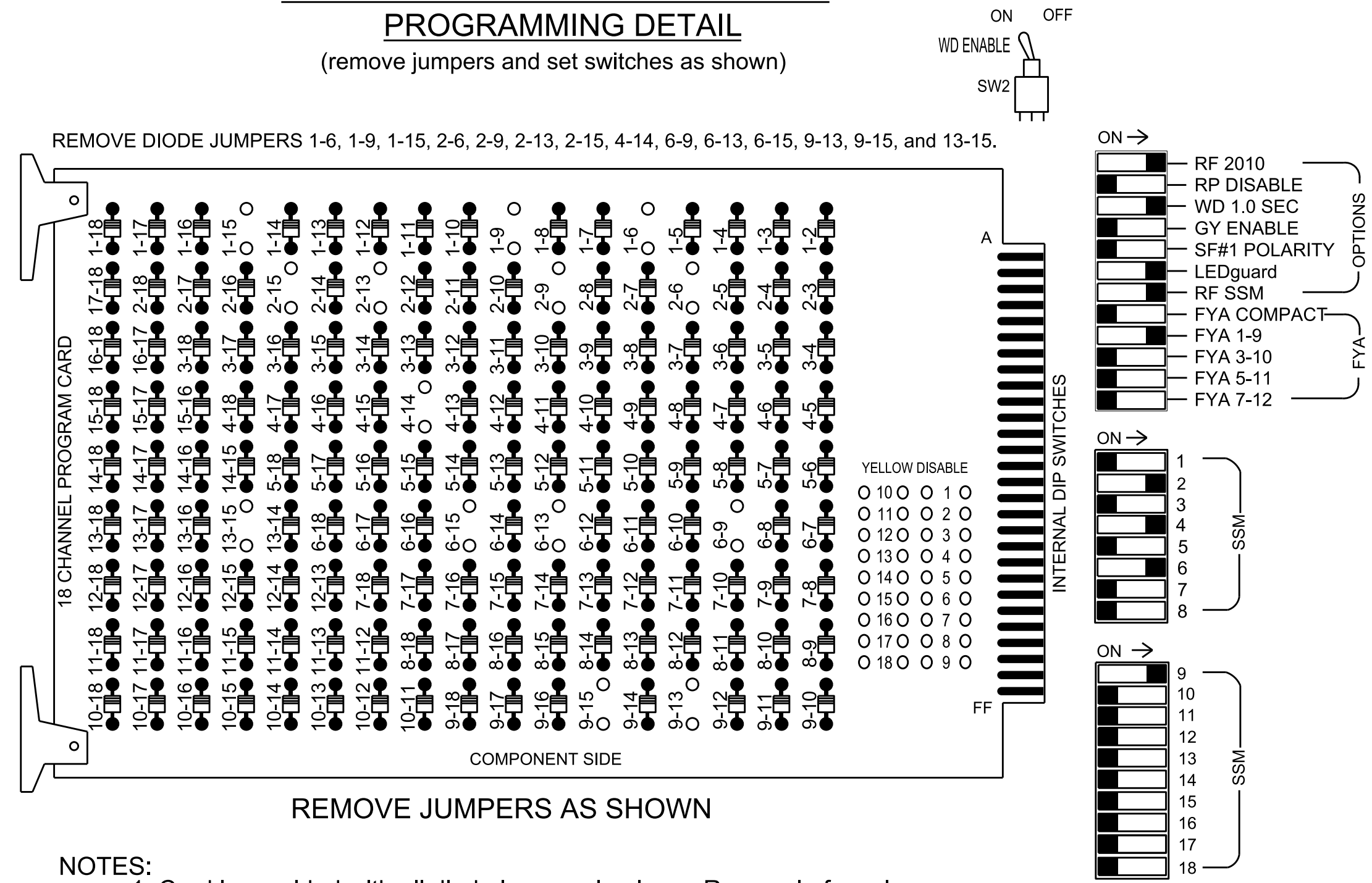


### 18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches 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 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 D13-22\_Ashville 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, S3, S5, S6, S8, S9, AUX S1  
 Phases Used.....1, 2, 2PED, 4, 4PED, 6, 6PED  
 Overlap "1".....\*  
 Overlap "2".....NOT USED  
 Overlap "3".....NOT USED  
 Overlap "4".....NOT USED

\*See overlap programming detail on this sheet.

### 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	P41, P42	NU	61	62	P61, P62	NU	11	NU	NU	NU	NU	NU
RED	128	128			101			134	134									
YELLOW	*	129	129		102			135	135									
GREEN			130		103			136										
RED ARROW																		A121
YELLOW ARROW																		A122
FLASHING YELLOW ARROW																		A123
GREEN ARROW	127	130							136									
Hand icon					113		104					119						
Person icon					115		106					121						

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

NU = Not Used

### INPUT FILE POSITION LAYOUT

(front view)

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

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

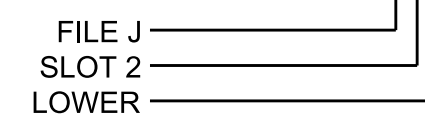
FS = FLASH SENSE  
 ST = STOP TIME

### 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	
				-	29	6			X	X		
2A	TB2-5,6	I2U	39	1	2	2				X	X	
2B	TB2-7,8	I2L	43	5	3	2				X	X	
4A	TB4-9,10	I6U	41	3	8	4				X	X	
4B	TB4-11,12	I6L	45	7	9	4	15			X	X	
PED PUSH BUTTONS												
P41,P42	TB8-5,6	I12L	69	35	4	PED 4						

NOTE: INSTALL DC ISOLATOR IN INPUT FILE SLOT I12.

INPUT FILE POSITION LEGEND: J2L

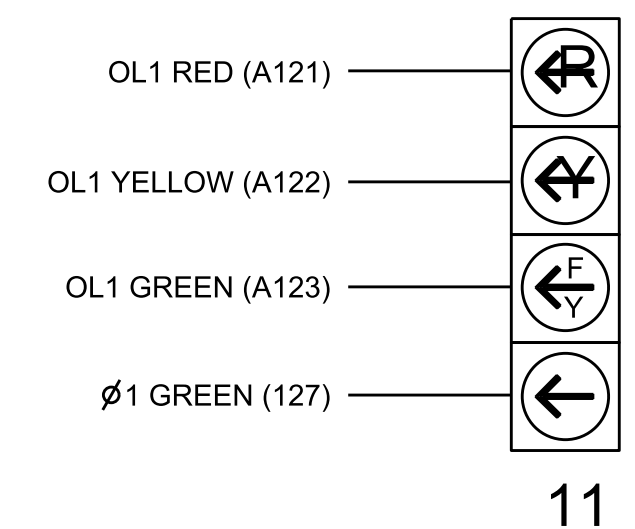


### COUNTDOWN PEDESTRIAN SIGNAL OPERATION

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.

### FYA SIGNAL WIRING DETAIL

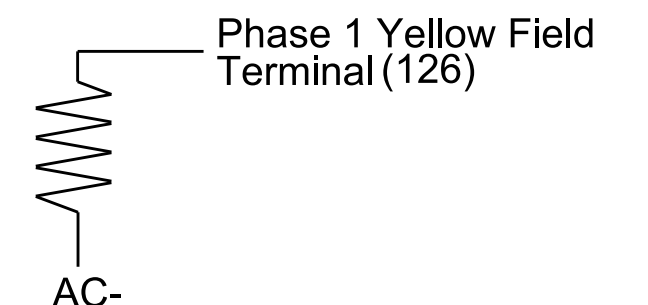
(wire signal heads as shown)



### 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: 13-1344  
 DESIGNED: January 2024  
 SEALED: 2/9/2024  
 REVISED:

### OVERLAP PROGRAMMING

Front Panel  
 Main Menu > Controller > Overlap > Overlap Parameters/Overlap Timings

Web Interface  
 Home > Controller > Overlap Configuration > Overlaps

Overlap Plan 1

Overlap	1	2	3	4
Type	FYA 4 - Section	Off	Off	Off
Included Phases	2	-	-	-
Modifier Phases	1	-	-	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

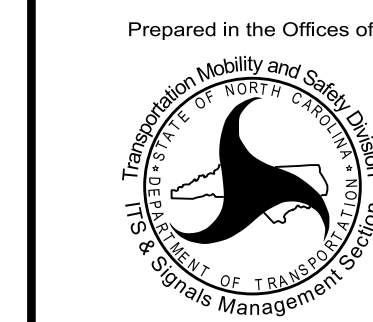
### SPECIAL DETECTOR NOTE

For Zone 6A, 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.

Electrical Detail

Electrical and Programming Details For:

US 19-23 Bus. (Haywood Rd)  
 at  
 I-240 WB Off-Ramp

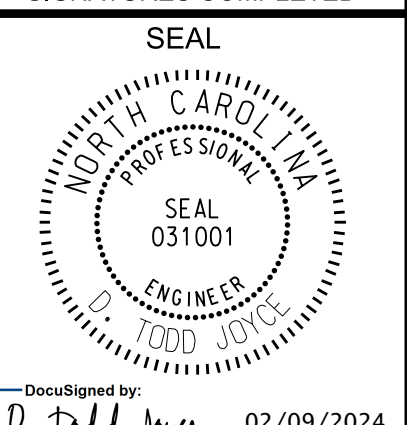


750 N. Greenfield Pkwy, Garner, NC 27529

Division 13 Buncombe County Asheville  
 PLAN DATE: February 2024 REVIEWED BY: D.T.J.  
 PREPARED BY: D.J. Craddock REVIEWED BY:

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



Designed by: D. Todd Joyce 02/09/2024

SIG. INVENTORY NO. 13-1344