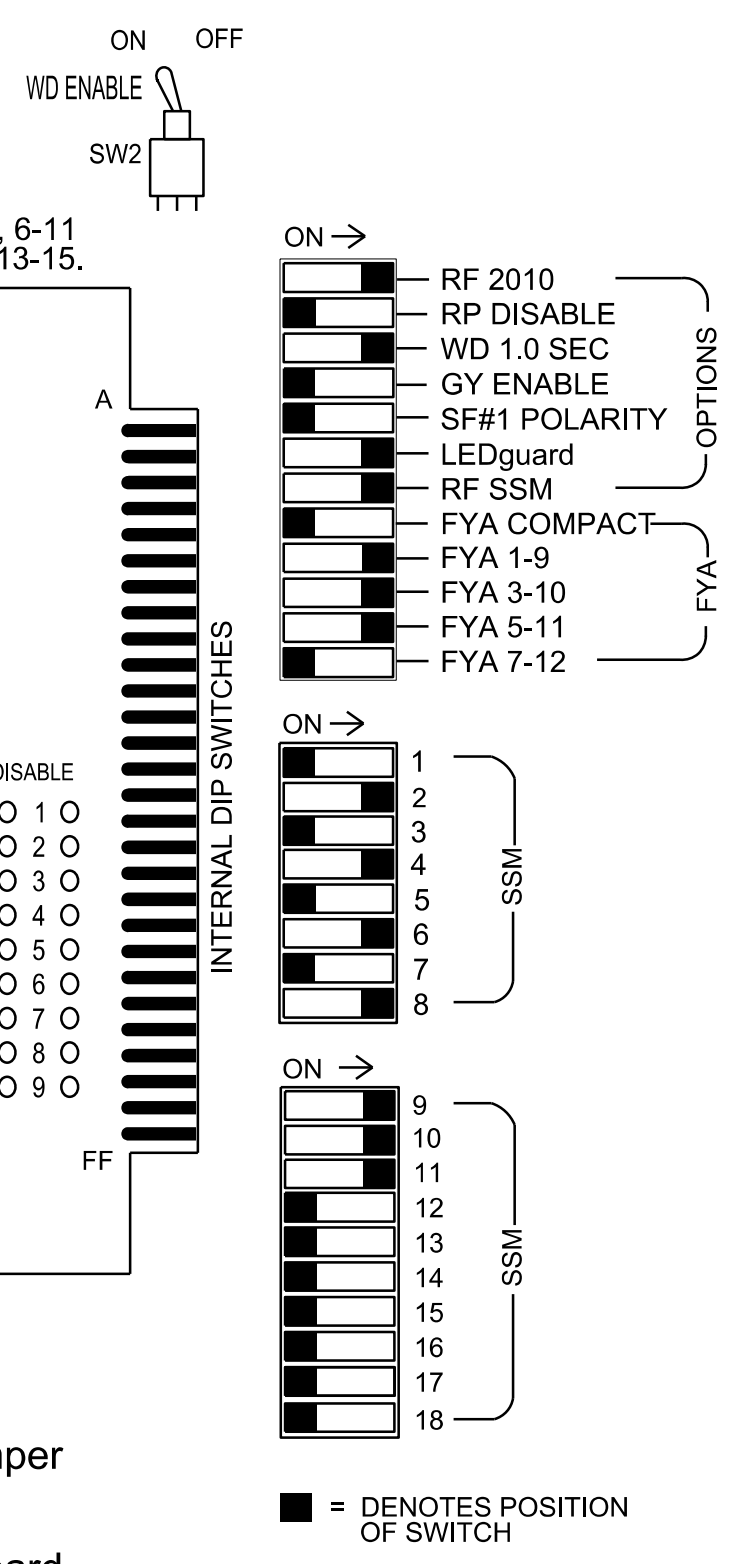
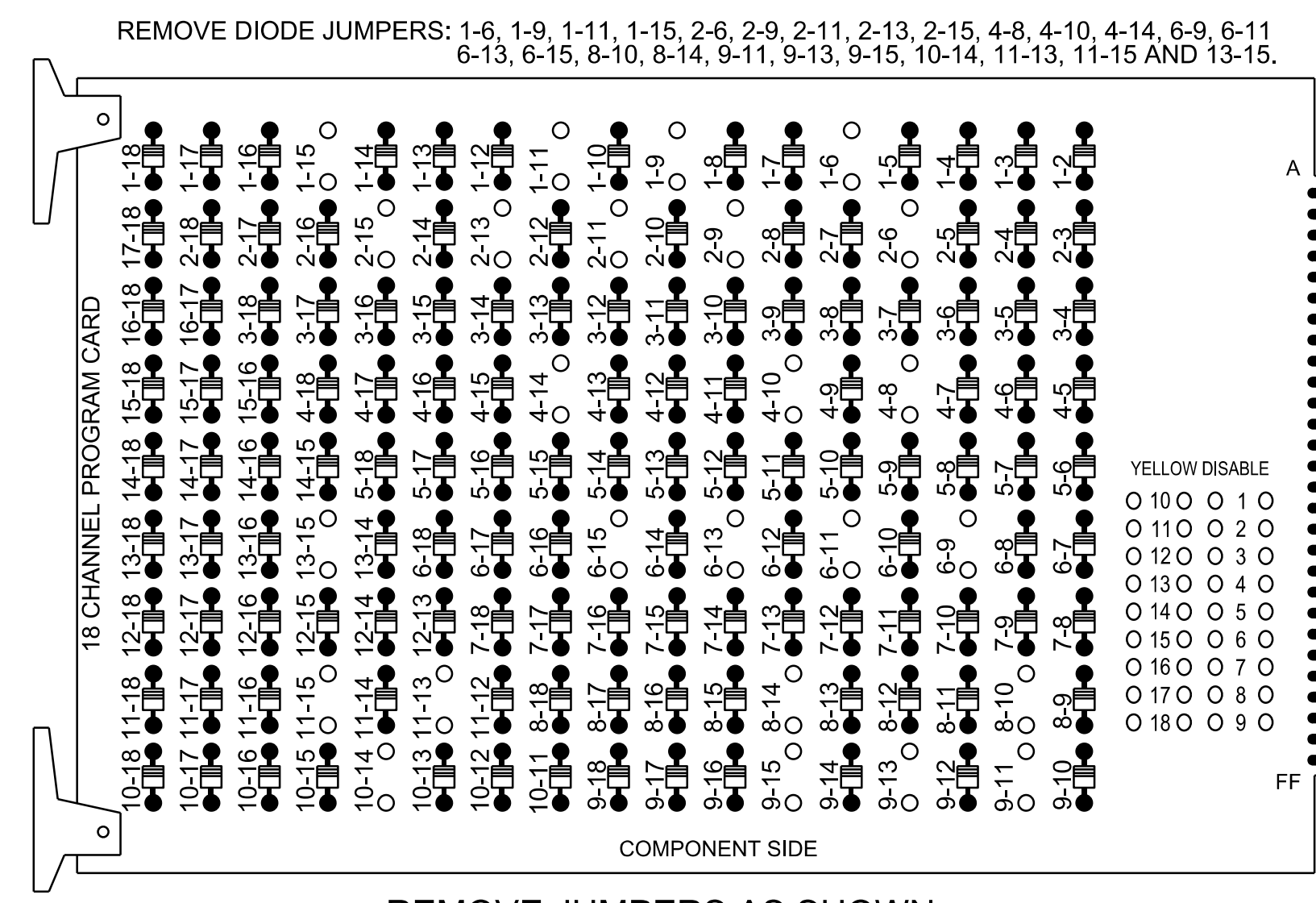


18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(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 phases 4 and 8 for Dual Entry.
- Program controller to start up in phase 2 Green Walk and 6 Green 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 D14-12 Waynesville 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, S3, S5, S6, S8, S9, S11, AUX S1, AUX S2, AUX S4

Phases Used.....1, 2, 2PED, 4, 4PED, 6, 6PED, 8
 Overlap "1".....*
 Overlap "2".....*
 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	22,23	P21, P22	NU	41,42	P41, P42	NU	61,62	P61, P62	NU	82,83	NU	11	81	NU	21	NU	NU
RED		128			101			134			107							
YELLOW	*	129			102			135			108							
GREEN		130			103			136			109							
RED ARROW													A121	A124		A114		
YELLOW ARROW													A122	A125		A115		
FLASHING YELLOW ARROW													A123	A126		A116		
GREEN ARROW	127																	

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)

FILE "I"	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	∅ 1	∅ 2	∅ 2	S	S	∅ 4	S	S	SYS. DET. S9	S	S	∅ 2 PED	∅ 6 PED	FS
	1A	2A	2C	S	S	4A	S	S	SYS. DET. S10	S	S	DC ISOLATOR	DC ISOLATOR	DC ISOLATOR
	NOT USED	∅ 2	NOT USED	E	E	NOT USED	E	E	SYS. DET. S11	E	E	∅ 4 PED	NOT USED	ST
		2B		E	E		E	E	SYS. DET. S12	E	E	DC ISOLATOR	DC ISOLATOR	DC ISOLATOR
FILE "J"	S	∅ 6	S	S	S	∅ 8	S	S	SYS. DET. S11	S	S	S	S	S
	E	6A	E	E	E	8A	E	E	SYS. DET. S12	E	E	E	E	E
		∅ 6				∅ 8								
	E	6B	E	E	E	8B	E	E		E	E	E	E	E

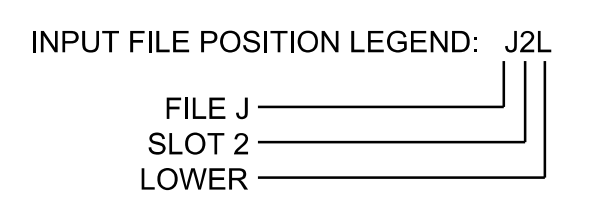
EX.: 1A, 2A, ETC. = LOOP NO.'S
 FS = FLASH SENSE
 ST = STOP TIME

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	
2A	TB2-5,6	I2U	39	1	2	2			X		X	
2B	TB2-7,8	I2L	43	5	3	2			X		X	
2C	TB2-9,10	I3U	63	29	4	2			X		X	
4A	TB4-9,10	I6U	41	3	8	4	10		X		X	
*S9	TB6-9,10	I9U	60	22	13	SYS			X			
*S10	TB6-11,12	I9L	62	24	14	SYS			X			
6A	TB3-5,6	J2U	40	2	16	6			X		X	
6B	TB3-7,8	J2L	44	6	17	6			X		X	
8A	TB5-9,10	J6U	42	4	22	8	3		X		X	
8B	TB5-11,12	J6L	46	8	23	8	10		X		X	
*S11	TB7-9,10	J9U	59	21	27							
*S12	TB7-11,12	J9L	61	23	28							
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						

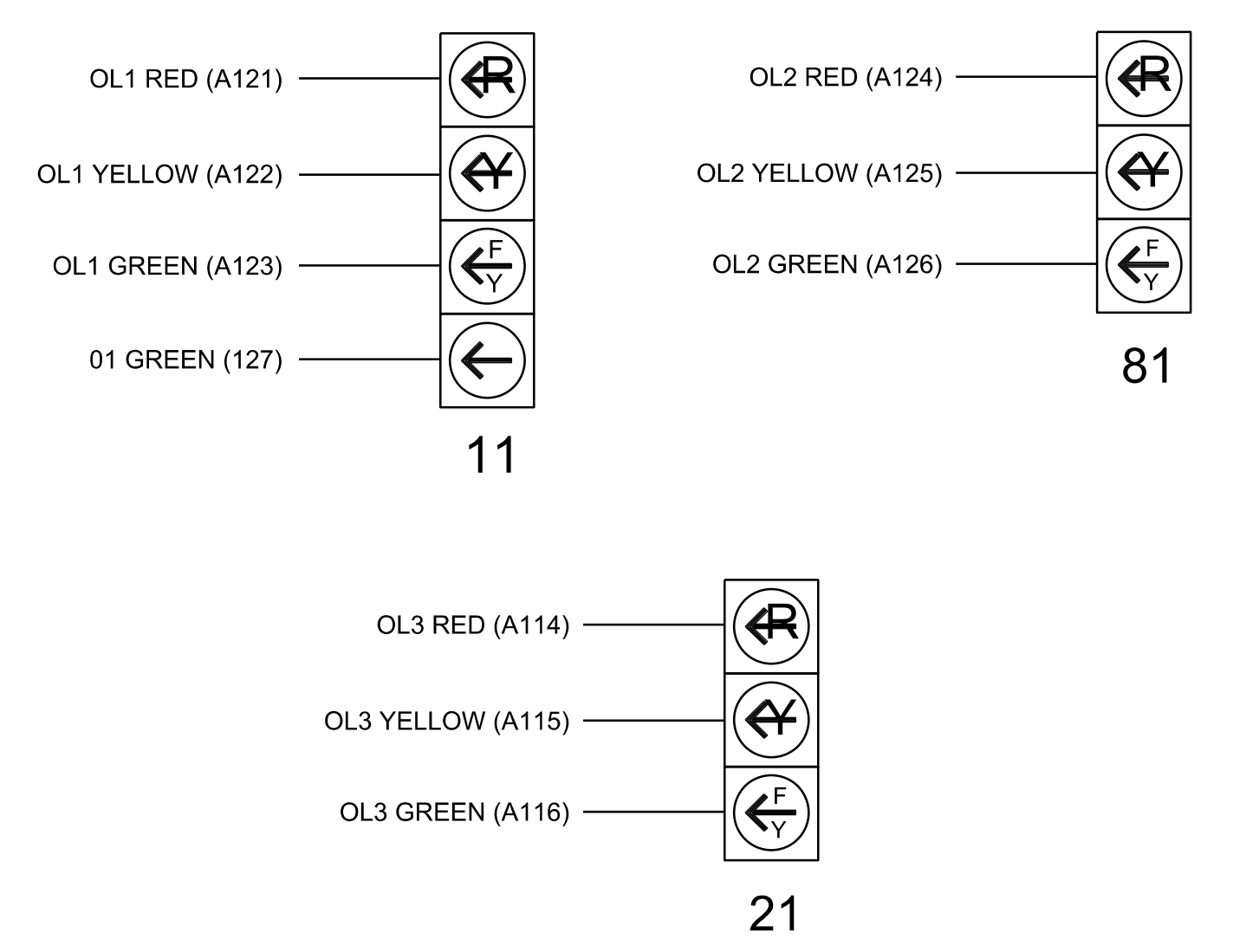
NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS 112 AND 113.

*System detector only. Remove any assigned vehicle phase.



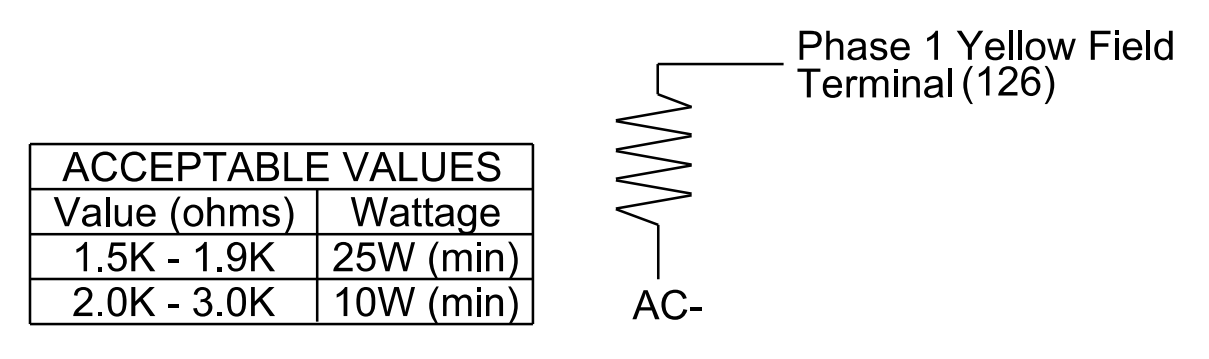
FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown)



Electrical Detail - Sheet 1 of 2
 Final Design

Prepared For: Infrastructure Consulting Services, Inc. RKA RAMEY KEMP ASSOCIATES 8210 University Executive Park Drive Suite 220 Charlotte, North Carolina 28223 Phone: 704-548-4200 www.rameykemp.com NC License No. F-1489	US 276 (Russ Avenue) at Shopping Center Entrance/ Lee Street Division 14 Haywood County Waynesville	SEAL WILLIAM J. HAMILTON ENGINEER 04/11/2023 DATE
	THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 14-0587 DESIGNED: Apr 2023 SEALED: 04/11/2023 REVISED: N/A	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
Electrical and Programming Details For: PLAN DATE: April 2023 PREPARED BY: TS Popelka REVISIONS:	REVIEWED BY: WJ Hamilton RKA PROJ. NO: 16085 (040) INIT. DATE	750 N. Greenfield Pkwy. Garner, NC 27529 DATE: 04/11/2023 SIGNATURE: William J. Hamilton SIG. INVENTORY NO. 14-0587