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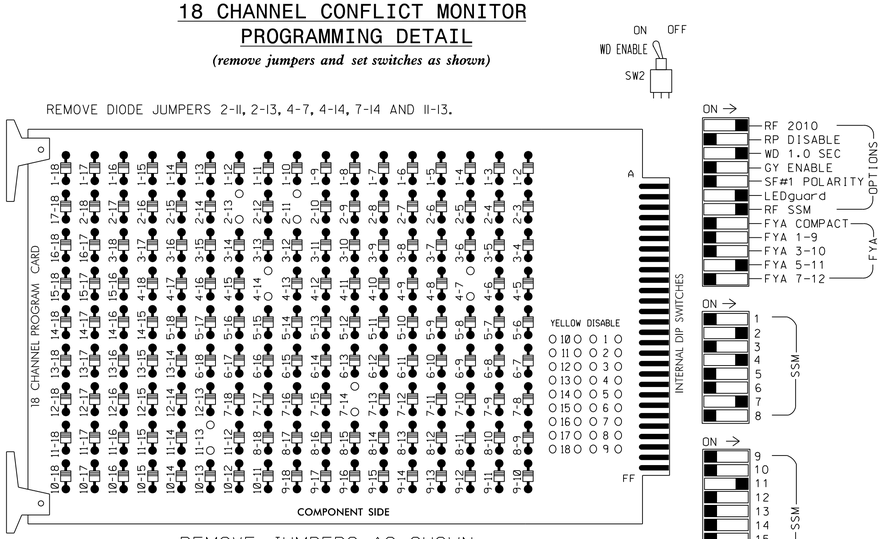
PROJECT REFERENCE NO.	SHEET NO.
U-5748	Sig. 5.1

18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



■ = DENOTES POSITION OF SWITCH

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 Red Enable is active at all times during normal operation.
4. Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

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.
3. Enable simultaneous gap-out feature, on controller unit, for all phases.
4. Program phases 4 and 7, on controller unit, for dual entry.
5. Program phase 2, on controller unit, for volume density operation.
6. The cabinet and controller are part of the Raleigh Signal System.

EQUIPMENT INFORMATION

CONTROLLER.....2070LX
CABINET.....332 W/ AUX
SOFTWARE.....SE-PAC2070
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED.....S2,S3,S5,S6,S10,AUX S4
PHASES USED.....2,2PED,4,4PED,7
OVERLAP "A".....NOT USED
OVERLAP "B".....NOT USED
OVERLAP "C".....*
OVERLAP "D".....NOT USED

* See Sheet 2 for Overlap programming.

SIGNAL HEAD HOOK-UP CHART

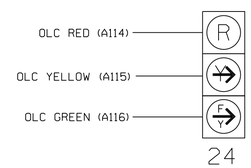
LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	21,22, 23	P21, P22	NU	41,42, 43	P41, P42	NU	NU	NU	71	NU	NU	NU	NU	NU	24 ★	NU	NU
RED		128			101											A114		
YELLOW		129																
GREEN		130																
RED ARROW										122								
YELLOW ARROW					102					123						A115		
FLASHING YELLOW ARROW																A116		
GREEN ARROW					103					124								
✋			113			104												
🚶			115			106												

NU = Not Used

★ See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

(wire signal head as shown)



NOTE

1. See sheet 2 for Protected & Permissive Phases programming.

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	Ø 2 2A	Ø 2 2C	SLOT EMPTY	SLOT EMPTY	Ø 4 4A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø2 PED DC ISOLATOR	SLOT EMPTY	FS DC ISOLATOR
	L		Ø 2 2B	NOT USED			Ø 4 4B						Ø4 PED DC ISOLATOR		ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø 7 7A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L					NOT USED									

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.	DETECTOR NO.	NEMA PHASE	DELAY TIME	EXTEND (STRETCH) TIME
2A	TB2-5,6	I2U	39	3	2		
2B	TB2-7,8	I2L	43	4	2		
2C	TB2-9,10	I3U	63	5	2		
4A	TB4-9,10	I6U	41	11	4		
4B	TB4-11,12	I6L	45	12	4		
7A	TB5-5,6	J5U	57	29	7		
PED PUSH BUTTONS							
P21,P22,PB23	TB8-4,6	I12U	67	PED 2	2 PED		
P41,P42	TB8-5,6	I12L	69	PED 4	4 PED		

NOTE:
INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

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.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 05-1169
DESIGNED: Jan 2023
SEALED: 1/24/2023
REVISED:

AECOM
NC Firm License No.: F-0342
5438 Wade Park Boulevard
Suite 200 Raleigh, NC 27607
Phone: 919-461-1100

Final Design
Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared for the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
ITS & Signals Management Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 401 NB (Louisburg Road)
at
Perry Creek Road

Division 5 | Wake County | Raleigh

PLAN DATE:	Jan 2023	REVIEWED BY:	H.M. Surti
PREPARED BY:	A. Ravipati	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 034481 ENGINEER HEMANG M. SURTI

DocuSigned by: Hemang M. Surti 1/24/2023
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SIG. INVENTORY NO. 05-1169

1/24/2023
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michael.cavenaugh