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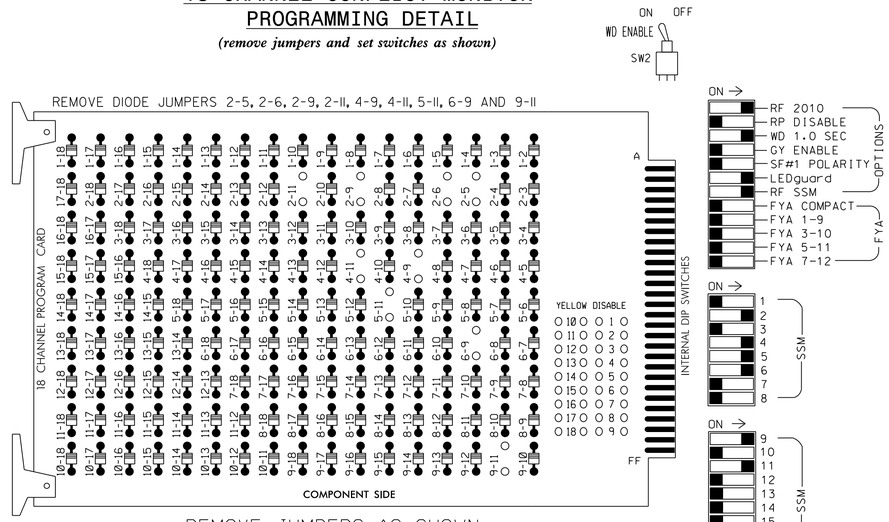
18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(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 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.

■ = DENOTES POSITION OF SWITCH

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 phases 2 and 6 green.
3. Enable simultaneous gap-out feature, on controller unit, for all phases.
4. Program phases 2 and 6, on controller unit, for volume density operation.
5. 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,S5,S7,S8,AUX S1,AUX S4
PHASES USED.....2,4,5,6
OVERLAP "A".....*
OVERLAP "B".....NOT USED
OVERLAP "C".....*
OVERLAP "D".....NOT USED

* See Sheet 2 for Overlap programming.

PROJECT REFERENCE NO.	SHEET NO.
U-5748	Sig. 17.1

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	OLG	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	21	22,23, 24	NU	NU	41,42	NU	51,52	61	62,63, 64	NU	NU	NU	NU	65	NU	NU	43,44	NU	NU
RED		128	128						134	134					A121			A114		
YELLOW		129	129						135	135										
GREEN			130							136										
RED ARROW						101		131												
YELLOW ARROW						102		132							A122			A115		
GREEN ARROW		130				103		133	136						A123			A116		

NU = Not Used

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	ø2 2A	ø2 2C	SLOT EMPTY	SLOT EMPTY	ø4 4A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L		ø2 2B	ø2 2D			ø4 4B								ST DC ISOLATOR
FILE "J"	U	ø5 5A	ø6 6A	ø6 6C	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	ø5 5C	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L	ø5 5B	ø6 6B	ø6 6D						ø5 5D					

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		
2D	TB2-11,12	I3L	76	6	2		
4A	TB4-9,10	I6U	41	11	4		
4B	TB4-11,12	I6L	45	12	4		
5A	TB3-1,2	J1U	55	19	5		
5B	TB3-3,4	J1L	55	19	5		
5C	TB7-9,10	J9U	59	37	5	15	
5D	TB7-11,12	J9L	61	38	5	15	
6A	TB3-5,6	J2U	40	21	6		
6B	TB3-7,8	J2L	44	22	6		
6C	TB3-9,10	J3U	64	23	6		
6D	TB3-11,12	J3L	77	24	6		

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 05-1252
DESIGNED: Jan 2023
SEALED: 1/24/2023
REVISED:

Final Design
Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared for the Offices of:
NC DEPARTMENT OF TRANSPORTATION Mobility and Safety Division Traffic Engineering Branch Signals Management Section

750 N.Greenfield Pkwy,Garner,NC 27529

US 401 (Louisburg Road)
at
SR 2044 (Ligon Mill Road)

Division 5 | Wake County | Raleigh

PLAN DATE:	Jan 2023	REVIEWED BY:	H.W. 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 AE7208DC7A5A481... 1/24/2023

SIG. INVENTORY NO. 05-1252

1/24/2023
pw:\\aecom-nc-pw.bentley.com:AECOM_DS21_NA_2020\Documents\60609754-U-5748 Ligon Mill\300-CAD GIS\10_CAD\70_NCDOT_TIP\Traffic\Signals\Design\Signals\Electrical Details_2022\05252_sm_ele_2022XXXX.dgn
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