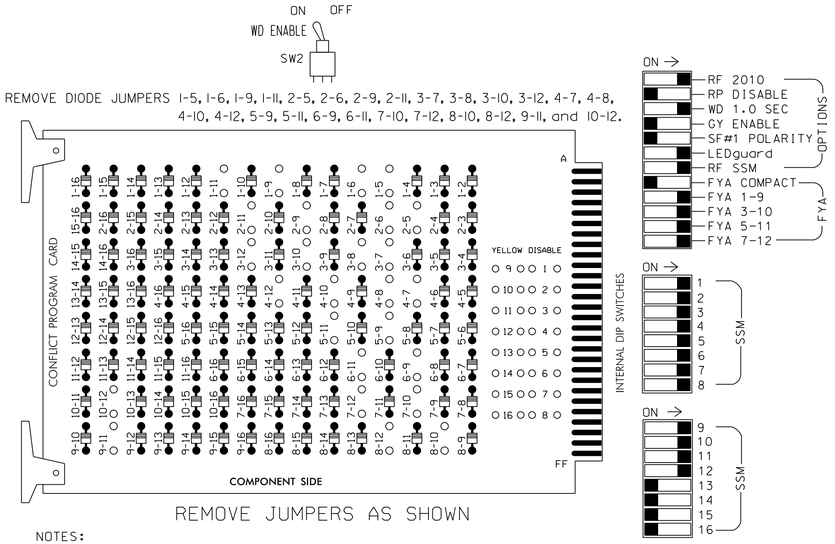
PROJECT REFERENCE NO.	SHEET NO.
SS-4903BR	Sig. 1.2

EDI MODEL 2010ECL-NC 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. Make sure jumpers SEL2-SEL5 are present on the monitor board.

■ = 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. Ensure that Red Enable is active at all times during normal operation. To prevent Red Failures on unused monitor channels, tie unused red monitor inputs 13, 14,15 & 16 to load switch AC+ per the cabinet manufacturer's instructions.
3. Program phases 2 and 6, on the controller unit, for Start Up In Green.
4. Enable Simultaneous Gap-Out, on the controller unit, for all phases.
5. Program phases 4 and 8, on the controller unit, for Dual Entry.
6. Program phases 2 and 6, on the controller unit, for Variable Initial and Gap Reduction.
7. Program phases 2 and 6,for Yellow Flash and overlaps 1 and 2 as Wag Overlaps.
8. The cabinet and controller are part of the NC 179/904 Closed Loop System.

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1		S2	S2P	S3		S4	S4P	S5		S6	S6P	S7		S8	S8P	S9	S10	S11	S12	S13	S14
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.	11★	82	21,22	NU	22	31★	41,42	NU	42	51★	61,62	NU	62	71★	81,82	NU	11★	31★	NU	51★	71★	NU
RED		✳	128		✳		101		✳		134		✳		107							
YELLOW			129				102				135				108							
GREEN			130				103				136				109							
RED ARROW																	A121	A124		A114	A101	
YELLOW ARROW		126			117				132				123				A122	A125		A115	A102	
FLASHING YELLOW ARROW																	A123	A126		A116	A103	
GREEN ARROW	127	127			118	118			133	133			124	124								

NU = Not Used

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

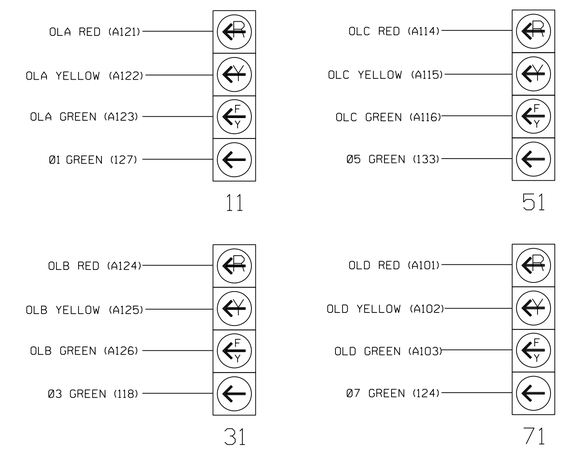
★ See pictorial of head wiring in detail below.

EQUIPMENT INFORMATION

CONTROLLER.....CONTRACTOR SUPPLIED 2070L
CABINET.....CONTRACTOR SUPPLIED 332 /W/ AUX
SOFTWARE.....ECONOLITE OASIS
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED.....S1,S2,S3,S4,S5,S6,S7,S8,S9,S10, S12,S13.
PHASES USED.....1,2,3,4,5,6,7,8
OVERLAP "A".....1+2
OVERLAP "B".....3+4
OVERLAP "C".....5+6
OVERLAP "D".....7+8

4 SECTION FYA PPLT SIGNAL WIRING DETAIL

(wire signal heads as shown)



NOTE

1. The sequence display for these signals require special logic programming. See sheet 2 for programming instructions.

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	Ø1	Ø2/SYS	SLOT	WIRED INPUT ⊗	Ø3	Ø4	SLOT	WIRED INPUT ⊗	SLOT	SLOT	SLOT	SLOT	SLOT	FS
		1A	2A/S3	EMPTY		3A	4A	EMPTY		EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	DC ISOLATOR
	L	NOT USED	Ø1 1B			NOT USED	NOT USED								ST DC ISOLATOR
FILE "J"	U	Ø5	Ø6/SYS	SLOT	WIRED INPUT ⊗	Ø7	Ø8	SLOT	WIRED INPUT ⊗	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT
		5A	6A/S4	EMPTY		7A	8A	EMPTY		EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY
	L	NOT USED	Ø5 5B			NOT USED	NOT USED								

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

⊗ Wired Input - Do not populate slot with detector card

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A[1]	TB2-1,2	I1U	56	18	1	1	Y	Y			15
	-	J4U	48	10★●	26	6	Y	Y	Y		3
	-	I1U	56	18★●	51	1	Y	Y			
1B	TB2-7,8	I2L	43	5	12	1	Y	Y			15
2A/S3	TB2-5,6	I2U	39	1	2	2/SYS	Y	Y			
3A[2]	TB4-5,6	I5U	58	20	3	3	Y	Y			15
	-	J8U	50	12 ●	28	8	Y	Y			3
	-	I5U	58	20 ●	53	3	Y	Y			
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			
5A[3]	TB3-1,2	J1U	55	17	5	5	Y	Y			15
	-	I4U	47	9★●	22	2	Y	Y	Y		3
	-	J1U	55	17★●	55	5	Y	Y			
5B	TB3-7,8	J2L	44	6	16	5	Y	Y			15
6A/S4	TB3-5,6	J2U	40	2	6	6/SYS	Y	Y			
7A[4]	TB5-5,6	J5U	57	19	7	7	Y	Y			15
	-	I8U	49	11 ●	24	4	Y	Y			3
	-	J5U	57	19 ●	57	7	Y	Y			
8A	TB5-9,10	J6U	42	4	8	8	Y	Y			

[1] Add jumper from I1-W to J4-W, on rear of input file.
[2] Add jumper from I5-W to J8-W, on rear of input file.
[3] Add jumper from J1-W to I4-W, on rear of input file.
[4] Add jumper from J5-W to I8-W, on rear of input file.
★ See Input Page 2 programming for Alternate 1 operation.
● See Input Page 3 programming for Alternate 2 operation.

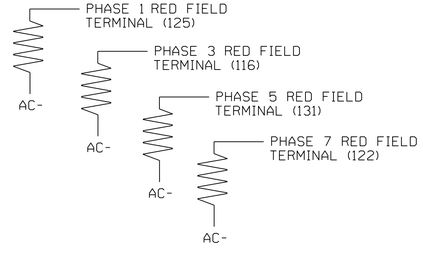
INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

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: 03-0389
DESIGNED: May 2017
SEALED: 5-03-2017
REVISED: N/A

Electrical Detail - Sheet 1 of 10

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISION SEAL

NORTH CAROLINA PROFESSIONAL SEAL 034343 ENGINEER A. MATTHEW THIGPEN

2017.05.03 10:50:53 -04'00'

SIGNATURE DATE

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of:

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals Management Section

750 N. Greenfield Pwky, Garner, NC 27529

NC 179-904/NC 179 (Beach Drive) at NC 904 (Causeway Drive) / SR 1184 (Ocean Isle Beach Road)

Division 3 Brunswick County Ocean Isle Beach

PLAN DATE:	October 2008	REVIEWED BY:	T. Joyce
PREPARED BY:	S. Armstrong	REVIEWED BY:	

REVISIONS	INIT.	DATE
2 Added Alternate 1 and Alternate 2 phasing operations. (JP)	KMM	3-21-16
1 New wood poles for temporary signal	AMT	3-13-17

SEAL

Not a certified document as to the Original Document but Only as to the Revisions - This document originally issued and sealed by George C. Brown, PE #022013, on 10-20-08.
This document is only certified as to the revisions.

SIGNATURE DATE

SIG. INVENTORY NO. 03-0389

03-MAY-2017 10:45
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