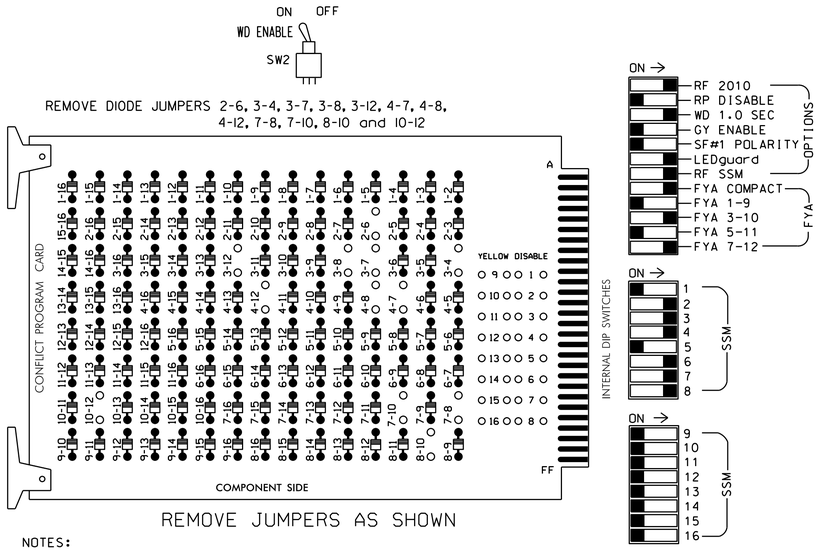
PROJECT REFERENCE NO.	SHEET NO.
U-3465	Sig. 2.1

EDI MODEL 2010ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE JUMPERS 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. Make sure jumpers SEL2-SEL5 are present on the monitor board.
3. ! Special cabinet wiring is required to utilize FYA COMPACT mode. See Ped Yellow Conflict Monitor Wiring Detail on this sheet. !

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 1,5,9,10, 11,12,13,14,15 & 16 to load switch AC+ per the cabinet manufacturer's instructions.
3. Program phases 4 and 8 for Dual Entry.
4. Enable Simultaneous Gap-Out for all phases.
5. Program phases 2 and 6 for Gap Reduction.
6. Program phases 2 and 6 for Start Up In Green.
7. Program phases 2 and 6 for Yellow Flash, and overlap 2 as Wag Overlaps.

EQUIPMENT INFORMATION

CONTROLLER.....2070L
CABINET.....McCAIN/CONTROL TECHNOLOGIES
(DWG.NO.9500-336-NCDOT)
SOFTWARE.....ECONOLITE OASIS
CABINET MOUNT.....POLE
OUTPUT FILE POSITIONS...12
LOAD SWITCHES USED.....S2,S3,S4,S4P,S6,S7,S8,S8P
PHASES USED.....2,3,4,6,7,8
OVERLAP "A".....NOT USED
OVERLAP "B".....3+4
OVERLAP "C".....NOT USED
OVERLAP "D".....7+8

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P		S5	S6	S6P	S7	S8	S8P	
PHASE	1	2	2 PED	OLB	4	3 GRN	4 PED	5	6	6 PED	OLD	8	7 GRN	8 PED
SIGNAL HEAD NO.	NU	21,22	NU	31★	41,42	31★	NU	NU	61,62 63	NU	71★	81,82	71★	NU
RED		128			101				134			107		
YELLOW		129			102				135			108		
GREEN		130			103				136			109		
RED ARROW				116							122			
YELLOW ARROW				117							123			
FLASHING YELLOW ARROW				118							124			
GREEN ARROW						105							111	
							*							*

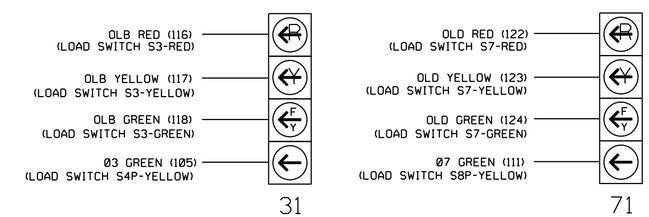
* Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail below.

NOTE: Load Switches S3,S4P,S7,S8P require output remapping. See sheets 3 and 4 of this electrical detail for instructions.

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



NOTE

The sequence display for signal heads 31 and 71 requires special logic and output remapping. See sheet 2 of 5 for programming instructions.

INPUT FILE POSITION LAYOUT

(front view)

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

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

⊗ Wired Input - turn off channel 2.

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
2A	TB21-3,4	I2U	39	1	2	2	Y	Y			
2B	TB23-3,4	I2L	43	5	12	2	Y	Y	Y	2.0	5
3A[1]	TB21-5,6	I3U	58	20	3	3	Y	Y			10
	-	I3L	49	11	24	8	Y	Y			3
4A	TB21-7,8	I4U	41	3	4	4	Y	Y			10
6A	TB21-11,12	I6U	40	2	6	6	Y	Y			
6B	TB23-11,12	I6L	44	6	16	6	Y	Y	Y	2.0	5
7A[2]	TB21-13,14	I7U	57	19	7	7	Y	Y			10
	-	I7L	50	12	28	4	Y	Y			3
8A	TB22-1,2	I8U	42	4	8	8	Y	Y			10

[1] Add jumper from I3-F to I3-W, on rear of input file.

[2] Add jumper from I7-F to I7-W, on rear of input file.

INPUT FILE POSITION LEGEND: I2L
FILE I
SLOT 2
LOWER

PED YELLOW CONFLICT MONITOR WIRING DETAIL

(FOR McCAIN CABINET ONLY)

In order to use FYA COMPACT mode on the 2010ECL-NC Monitor, the cabinet must be wired such that the (unused) Ped Yellow load switch outputs are wired to the conflict monitor as follows: From 2 PY (field term. 114) to chan. 9 green (monitor pin 13), from 4 PY (field term. 105) to chan. 9 yellow (monitor pin 16), from 6 PY (field term. 120) to chan. 10 green (monitor pin R), and from 8 PY (field term. 111) to chan. 10 yellow (monitor pin U).

This is accomplished through a keyed plug connection found on the inside panel of the output file.

Fold down rear panel of output file and find a set of 3 white keyed connectors. Plug together the two connectors labeled as shown below:

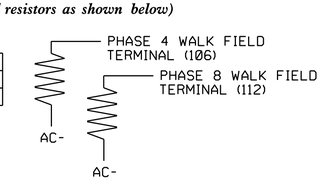
1-2PY	1-CMU-13
2-4PY	2-CMU-16
3-6PY	3-CMU-R
4-8PY	4-CMU-U

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: 06-0642T1
DESIGNED: May 2014
SEALED: 6/20/2014
REVISED: N/A

Electrical Detail - Temporary Design 1 (Phase I - Step 2) - Sheet 1 of 5

ELECTRICAL AND PROGRAMMING DETAILS FOR:

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

SR 1121 (Ray Road)
at
SR 1120 (Overhills Road)

Division 6 Harnett County DS Spring Lake

PLAN DATE: June 2014 REVIEWED BY: JTR
PREPARED BY: S. Armstrong REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 008453 ENGINEER JOHN T. ROWE, JR.

DocuSigned by: John T. Rowe, Jr. 6/26/2014
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DATE

SIG. INVENTORY NO. 06-0642T1

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